



THE LEAF

LYNN VALLEY GARDEN CLUB

Established 1943

October 2019

President's Message - Anna Marie D'Angelo

I like to keep my grass on the long side to stop chafer beetles from laying their eggs in my lawn. During the nice weather, I will look out and see about a half dozen or more crows doing the rooster walk on my lawn like an invading chorus line. They look like they are thinking, "We know they are in here somewhere.... Caw, caw"! So far, I have been lucky and my grass is intact.

At this time of year, I also remind myself not to clean up all the done greenery, except to clear pathways so that there are seeds and whatnot available for birds and other nice critters. It's always a delight to see a flock of small birds pecking away in a patch of my yard, occasionally fluttering their hind feathers like they are shivering. Then as though someone blew a whistle, they all take off. As I was transplanting some astilbe in pretty much the last gasp of garden work for this year, I came across a carefully half buried apple from my neighbour's tree. Who put this here? Later that day I noticed that one of the apple tree's branches was moving like it was in a whirl. When it finally stopped, out popped a squirrel, probably having dropped another ripe fruit to stash.

Although I prefer observing and working in my yard to pretty much anything else, I will admit that there was not a better way to spend a mid September evening than we did last month to end the club's 75th celebrations. I want to thank everyone again for making the meeting so special. What a great team effort!

Lastly, please help Membership tackle their year-end task as efficiently as possible by renewing your membership now. **The membership renewal form is in this Leaf.**



KUDOS to Aline Burlone for the wonderful video presentation at the 75th Anniversary party. In case you want to have another look - or if you missed the September meeting - your cover email contains a link to the presentation on *Vimeo*. ENJOY!

... and now for some navel-gazing / 20:20 hindsight... Cast your minds back to the [new and improved, enormously successful] 2019 **Plant Sale**. Why was it so amazingly successful? What worked well? If we are to repeat this - what can we do even better next year? Your thoughts, ideas, suggestions are valuable and the MALS and the Exec want to hear them. Please bring all your scathingly brilliant ideas to the next meeting - and be ready to share. If you have a horrid comment - even that is welcome! - or if you are too shy to bring something up out loud, a note on a piece of anonymous paper will do. We are interested in them all! Fire up those neurons.

LVGC MEETINGS

3rd Thursday of each month (except July and August) at

St. STEPHEN'S Church
1360 E 24th Street

Please note that meetings start promptly at 7:15 PM

SPEAKERS

Oct 17

ANASTASIA DUSHYNA
Rowing and harvesting Herbs & Tasty Medicinal Plants

Nov 21

KEITH WADE
Biological Evolution of the North Shore: Why Do Our Forests Grow the Way They Do?

Dec 12

HOLIDAY PARTY
Note that this is the 2nd Thursday of the month!!

Mailing Address:

Lynn Valley Garden Club
P.O. Box 16053
1199 Lynn Valley Road
North Vancouver, BC
V7J 3S9

<http://www.lynnvalleygardenclub.org>

October LEAF photo credits to Norma Austin, Sue Callahan, Anna Marie D'Angelo, Rita Marshall, Antonia Issa

2019 Executive

President
Anna Marie D'Angelo x

Vice President
Penny LeCouteur x
Secretary
Jackie Morris x
Treasurer
Ginette Handfield x

Membership
Susan Huber x
Sue Callahan x
Members at Large
Daphne Page x
Doreen Dew x
Hiromi Matsui x
Linda Howe x

Committees
Newsletter Editor
Maria Issa x
Plant Table
Norma Buckland x
Hospitality
Carole Cobbett x
Susan Nicholls x
Maggie Davis x
Sunshine/Door Prizes
Shirley Lawson x
Website
Aline Burlone x

Executive Meetings

1st Wednesday of the month
Next Meeting: Nov 6, 7:30 PM
Chez Ginette Handfield
x

Next Newsletter Deadline

November 13, 2019
If you have material to delight your fellow members - please submit it *via* the time-honoured routes or email to <mailto:lynnvalleygardenclubnewsletter@gmail.com>

Thanks to all who contributed to this edition: Wayne Smith, Jackie Morris, Susan Nicholls.



SPEAKER

ANASTASIIA DUSHYNA--- *Thursday, October 17, 2019*
Growing and Harvesting Herbs - Tasty Medicinal Plants

Ana is a Botanical pharmacology specialist, has a Masters of Science in Pharmacy and she is a garden speaker, and a certified landscaper and herbal garden designer. Born and raised in Europe, inspired by her grandmother who is a doctor and ethnobotanist, she decided to explore medicinal plants. Ana has more than a decade of experience in pharmaceuticals and now, in her spare time, devotes her expertise to encourage people all across Canada and America to grow beautiful medicinal plants.

Growing and Harvesting Herbs: This presentation clarifies what medicinal plants to choose for your garden and how to harvest them properly; provides know-how for different herbal remedy preparations and how to include them in every-day wellness routines.

Tasty Medicinal Plants: There are lots of different herbs to be bought in stores or to grow in our garden. During this evening's presentation you will discover herbs that are both culinary and medicinal. You will learn the history and traditions around their usage, and will hear how to add more flavour to meals and your everyday life.



REPORTS

VP Report - Penny LeCouteur

Exciting speakers, on a range of interesting subjects are booked well into next year!! Thanks for all your ideas and submissions: keep them coming, as they are all useful!

Membership Report - Susan Huber, Sue Callahan

We welcome five new members to the club: Francisco C, Paula H, Jane J, Pat L, and Alison P. We are now at our maximum of 150 members and we will add any new names to our Waitlist.

Renewals:

From October to December, we are accepting member renewals. The 2020 registration form [see the end of this Leaf] must be completed by all members, along with your payment. Starting in January, we will accept new member registrations, so don't delay in getting in your renewals! Membership cards will go to the printers in time for the January meeting. Your 10% discount using the card is another reason to get your renewals in on time. *And bonus!* - if you are paying by cheque now, we will accept cheques post-dated to December 31, 2019. Any questions: lvgc.membership@gmail.com

Treasurer's Report - Ginette Handfield

LVGC's current financial position is as follows:

Cash on Hand	\$518.20
Bank Account	\$13,787.11
Total	\$14,305.31

It was suggested that we should report the proceeds of the Plant Table at our General Meetings, which are from the donations of gardening items by the Members. I will include this item in my monthly report from now on. The proceeds of the Plant Table at the September meetings was \$26.00 for a total of \$118.60 so far this year.

Donation cheques to other organizations were mailed to all the recipients in the amounts approved by the membership at the September General Meeting.

The proposed 2020 budget with some commentaries is at the end of this Leaf. Please review the information ahead of the discussion and vote at the November meeting (Not the one coming up in October, but the one after, in November). This is for you to think upon.

Plant Table - Norma Buckland

As it has been perfect gardening weather, The Plant Table is looking for interesting fall-plantables. Bring your offerings to the meeting!

Hospitality - Carole Cobbett & Maggie Davis & Susan Nicholls

As we too, would like to listen to the Q&A with the speakers and not be shuffling teapots, please offer your assistance at clean-up time - so that "many hands can make light work". Don't forget your **MUGS** as we want to walk lightly on this Earth and not use disposables. Also please remember your item for **Harvest Project** - every little bit helps: if we each bring just **one non-perishable item** - many families, who otherwise would not, will have great dinners.

MAL Report - Doreen Dew & Linda Howe & Hiromi Matsui & Daphne Page

As already mentioned - the MALs would like some mental input for next year's Plant Sale; physical input would also be nice - as it is **TIME TO SPLIT THOSE PLANTS** and pot them up now before it gets cold - then the little green guys can grow their new little roots in the pots and be nice and big and juicy by the time the sale rolls around. The "emergency transfer" of potting up plants a few days before the sale is hard on both the plants and the planter. To quote an irascible past boss "PPPPP!!!!!" [Prior Planning Prevents Poor Performance!]. Follow Sue Callahan's example!!



The 75th Anniversary Celebration

Did you miss it? In case you did - here are some highlights. The Great Presentation by Aline Burlone (you can catch on Vimeo - see your cover email for the link), the albums and newspaper history, curated by Linda Howe (go to the North Vancouver Archives) are still accessible for those of you who are interested. The CAKE, alas! is just a delicious memory: thanks to the entire Hospitality Team for the enormous, yummy confection. Thanks also go to Rosemarie Adams who tracked down and invited many past members to come and celebrate with us. We were all delighted to renew old friendships - and I was particularly happy to see my predecessor Editor, Irene Dudra. We hope that they will join us occasionally.





Potted Carrots

- Wayne Smith



I'm pleased with my potted carrots. They did very well for such a small amount of soil. I believe I used wood ash and maybe some potash and planted them very early. They grew in a well-watered trough. I just ate one: they are quite sweet, juicy, and not tough so I'll be chewing these for a week or two.



"The day is coming when a single carrot, freshly observed, will set off a revolution."

--- Paul Cézanne



The Veggimates' Vegetable of the Month - did not materialize - so as Wayne had already set the stage, I declare Oct 2019 the Month of the Carrot! -ed

"I never worry about diets. The only carrots that interest me are the number you get in a diamond!" - Mae West

Carrots!!!

Carrots 101: Nutrition Facts and Health Benefits

-Adda Bjarnadottir, MS

The carrot (*Daucus carota*) is a root vegetable often claimed to be the perfect health food. It is crunchy, tasty, and highly nutritious. Carrots are a particularly good source of beta carotene, fiber, vitamin K1, potassium, and antioxidants. They also have a number of health benefits. They're a weight-loss-friendly food and have been linked to lower cholesterol levels and improved eye health. What's more, their carotene antioxidants have been linked to a reduced risk of cancer. Carrots are found in many colors, including yellow, white, orange, red, and purple. Orange carrots get their bright color from beta carotene, an antioxidant that the body converts into vitamin A. This article tells you everything you need to know about carrots.

[The link to the full article is in your cover email – here are the salient bits. There are details and background references for each section and the entire article is evidence-based. -ed]



1. Carrots are about 10% carbs, consisting of starch, fiber, and simple sugars. They are extremely low in fat and protein.
2. Carrots are an excellent source of vitamin A in the form of beta carotene. They are also a good source of several B vitamins, as well as vitamin K and potassium.
3. Carrots are a great source of many plant compounds, especially carotenoids, such as beta carotene and lutein.
4. Eating carrots is linked to a reduced risk of cancer and heart disease, as well as improved eye health. Additionally, this vegetable may be a valuable component of an effective weight loss diet.
5. While no evidence suggests that organic carrots are more nutritious than conventionally grown ones, organic varieties are less likely to harbor pesticides.
6. Baby carrots are whole carrots harvested before they grow large, while baby-cut carrots are pieces from larger carrots that have been machine-cut, peeled, polished, and washed before packing.
7. Carrots may cause reactions in people allergic to pollen.

Additionally, carrots grown in contaminated soils may contain higher amounts of heavy metals, affecting their safety and quality.

"The man in the moon drinks claret,
But he is a dull Jack-a-dandy;
Would he know a sheep's head from a Carrot,
He should learn to drink cider and brandy."

Song of Mad Tom in A Midsummer Night's Dream, William Shakespeare

Are Purple Carrots Healthier?

- Jillian Kubala, MS RD

Though most people when picturing a carrot, carrots. In fact, the first evidence of was in the Iranian Plateau and century AD – these ancient The modern, orange carrot breed of yellow carrots, which genetic mutation. Red and Eastern varieties, while yellow, known as Western-type have been largely replaced by common in today's grocery



envison an orange vegetable were originally purple or white. carrots being used as a food crop the Persian Empire in the 10th carrots were purple and white. likely originated from a new were developed as a result of a purple carrots are considered orange, or white carrots are carrots. The Eastern-type carrots the orange Western types that are stores.

Purple carrots are particularly rich in anthocyanins, which are antioxidants shown to protect against heart disease, mental decline, and diabetes. Eating purple carrots may reduce your risk of certain types of cancer including colon and breast cancer. Purple carrots are highly nutritious and low in calories. Replacing high-calorie, processed foods with more vegetable-based dishes may help you lose weight. Animal and test-tube studies show that purple carrots may be effective at reducing symptoms of metabolic disease and improving inflammation related to IBD.

Purple carrots contain an impressive array of vitamins, minerals, and powerful plant compounds that may benefit your health in many ways. Though all types of carrots are nutritious and healthy, purple carrots contain powerful antioxidants called anthocyanins that have impressive effects on your health. Eating purple carrots may improve heart health, encourage weight loss, and reduce inflammation and your risk of certain cancers. These brightly coloured veggies not only pack powerful health benefits but can also add color and flavour to many of your favourite dishes.



Pliny the Elder, a Roman Historian and scientist said:

"There is one kind of wild pastinaca which grows spontaneously; by the Greeks it is known as staphylinos. Another kind is grown either from the root transplanted or else from seed, the ground being dug to a very considerable depth for the purpose. It begins to be fit for eating at the end of the year, but it is still better at the end of two; even then, however, it preserves its strong pungent flavour, which it is found impossible to get rid of." - It was the Carrot.



Inuvik Greenhouse

- Jackie Morris

Most of us will have heard of the high cost of food, if available, in the North: this is often called "food insecurity". A friend was visiting Inuvik recently and was given a tour of a huge community greenhouse. She was so impressed with what they are doing that she donated to them and started letting others interested in local food production know about these efforts. I plan to send in a donation. I know we decided on our charity donations at the September meeting, but, if the club decides to donate to the Inuvik Community Greenhouse (which meets 3 out of our 4 mission goals), I will match the club's donation. Personal donations can be as low as \$5 !! READ ON!

Solar Powered Greenhouse in the Arctic [adapted from their fundraising page and other sources.]



The Inuvik Community Greenhouse, located 2 degrees north of the Arctic Circle, is a 16,000 sq. ft. greenhouse converted from an old hockey arena in 1998. It focuses on promoting community through gardening and producing low cost, fresh vegetables. The greenhouse has 100 members who farm plots, and 20 community beds.

The members also grow starter plants for outlying communities such as Fort McPherson, Tsiigehtchic, Aklavik, Ulukhaktok, Paulatuk, Sachs Harbour and Tuktoyaktuk, as part of the Small Scale Food Project. They develop gardening and food production programs that not only provide locally grown food, but also create jobs in the communities. Currently, these initiatives are producing hundreds of pounds of food over the summer months.

They have many programs for youth, elders and the homeless shelter as well as help promoting health through physical activity, nutrition, reducing isolation - increasing socialization and building community partnerships.

The crowdfunding effort through FundRazr was started to help raise money for the roof - and -- great news -- the Government of the NWT, ITI department, has finalized the last 60% (we have contributed 40% from fundraising and donations). Repairs to begin shortly!

The Inuvik Community Greenhouse is run by the Community Garden Society of Inuvik, a not-for-profit organization dedicated to the promotion of healthy communities through gardening. Ongoing projects for which the Society needs help include other repairs to the greenhouse, renovating the office and education space, and increasing educational opportunities for the communities.



Save Old Growth Trees!!!

- Torrance Coste, The Wilderness Committee

WRITE WILD TO SAVE OLD-GROWTH - THERE'S A CRISIS IN OUR FORESTS

Dear Lynn Valley Garden Club,

Your action is urgently needed.

Earlier this spring, many people signed a petition calling on the BC government to end old-growth logging. Signing this petition was the first step in building an unstoppable wave of public pressure the BC government can't ignore.

The next step? Email your MLA and tell them to stand up for healthy, intact forests.

There is a link in your cover email where you can write your letter directly.

The West Coast's original rainforests are in dire need of protection. It's time to rebuild the forest industry for the 21st century and create a forest economy that prioritizes Indigenous Nations and local jobs.



Now it's time to let your MLA know directly you expect them to protect BC's endangered old-growth rainforests.

These are big tasks, and our provincial politicians won't take them on unless we demand it.

Politicians won't pay attention to an issue unless they're hearing about it from their constituents, so your voice is crucial to get them to understand: it's time to act on old-growth forests.

From Schmidt Creek to the Nahmint Valley to the Sunshine Coast, old-growth forests are being destroyed every day. The government promised improvement when it comes to protecting forests but has yet to make any meaningful change. It's time to show them this is unacceptable and we demand better.

Add your voice now to the chorus calling for a just transition to sustainable second-growth forestry.



Donate Christmas Cards!!!

- Jackie Morris & Courtney Mitchell

A small group I belong to are the only outside people at the annual WISH Society Christmas Party. We have operated a table for several years where we offer Christmas cards - as many as the women want. It started out as a literacy project but it is more importantly a way for the women to keep in touch with family and friends. Women who know of this table will bring a list and often ignore their dinner to write cards. We will mail them, if requested. We often see them giving cards to the WISH staff and thanking them.

WISH operates a drop-in centre open 6 PM to noon in Vancouver's Downtown Eastside, where female sex trade workers can relax in acceptance and safety and meet their basic needs (food, clothing, nursing care, personal items, showers), receive individualized support and participate in programs. There are security gates and live door monitoring and no men are allowed at all.

We are looking for donations of unused Christmas cards with envelopes. The cards the women seem to prefer are sparkly/shiny, colourful, fun, kids themes, featuring animals or birds. We often have donations of a few INDSPiRE cards (not Christmas) by First Nations artists with Aboriginal themes. We put these out a few at a time and only allow one per person. The cards seemingly not wanted are dull or featuring scenes of fancy homes, happy white children or lots of presents. *I will pick up any card donations you have, at the November meeting. Thanks in advance!*



Vancouver Fruit Tree Project - if you have unpicked fruit that you want to donate - these people will pick it and take it away and even leave you some! <https://vancouverfruittree.com/get-involved/tree-owners/>

EVENTS & COURSES

MASTER GARDENER PROGRAM: REGISTRATION

- Helen Shim Boyle

Hello Gardeners!

If you are a beginner, a long time gardener or anyone in between, this course will provide you with a solid grounding in the basics (~ which even experienced gardeners will learn from), the most up to date horticultural information, resource material, contacts and a large gardening/environmentally focused network. We have heard many students who have been gardening for years say that they wished that they had taken this course sooner as it would have saved them time, energy and money ... given them more creative or feasible gardening ideas/solutions ... very much shortened their learning curves ... and corrected or improved their long-standing horticultural practices. We are facing new challenges in gardening i.e. climate change, sustainability, smaller or no yards, food security and evolving ecologically sensitive ways to deal with pests and diseases: the Basic Training Program covers these issues and more.

We hope that you will consider taking this course and/or will forward this email to people you know who may be interested.

PLEASE REGISTER EARLY TO SECURE A PLACE IN THE CLASS. Our website (see links!) provides all of the course, contact and registration information. We hope to see you in January.

With best regards,

Helen - for The Vancouver Master Gardener Basic Training Program.

"The love of gardening is a seed once sown that never dies" ~ Gertrude Jekyll

ART IN THE GARDEN 2020

- Leigh-Anne Niehaus

We have just opened our 2020 Art in the Garden festival call for gardeners. We are searching for 14 inspiring gardens to include in the tour! I have attached a poster that is ready to print out and place on your notice board, or, if you'd prefer, here's is the direct link to our online registration.

The dates for next year are *May 30 & 31, 2020*, the festival occurs on both Saturday and Sunday from 12 PM - 5 PM, rain or shine. Selected gardens will host musicians, artists and artisans on the day of the event. We also offer A \$100 honorarium to each volunteer gardener.

Thank you in advance for spreading the word.

Leigh-Anne Niehaus

Events & Community Development Manager | North Van Arts

335 Lonsdale Ave, North Vancouver, BC, V7M 2G3

604-988-6844 | northvanarts.ca

APPLE FESTIVAL AT THE UBC BOTANICAL GARDENS
SATURDAY, OCTOBER 19TH & SUNDAY OCTOBER 20TH
11 AM - 4 PM

Taste and celebrate BC-grown apples, learn more about apple diversity, and enjoy a day outside in the Garden, where many activities and treats await attendees of all ages! Apple Festival is a great opportunity to discover more about one of BC's favourite fruits.

39TH ANNUAL VMS MUSHROOM SHOW
OCTOBER 20, 11:00 AM - 4:00 PM
Come celebrate all the amazing fungi at our 39th show!

\$3

VanDusen, Floral Hall, 5151 Oak St

Vancouver, BC V6M 4H1

(604) 257-8335

2019 FALL GENERAL MEETING BC COUNCIL OF GARDEN CLUBS

OCTOBER 26, 2019
Firefighters Banquet & Conference Centre 6515 Bonsor Avenue
Burnaby, BC V5H 3E8
9:00 AM to 4:00 PM
For tickets, see website



The Compost Bin

- Maria Issa

Whenever I visit a public washroom – I feel hard done-by: for us women, there are endless, ignominious line-ups (Orpheum concerts, anyone?) and the cubicle doors open *inwards*. That means having to snake-dance to not polish the porcelain. This prompts me to rail against the male architects and engineers whose lack of customer service designed the utilities. So you would think, I would be delighted with these beauties from Cold Overton, Leicestershire, Gates Garden Centre’s facilities that Susan Nicholls sent in. Well – NO! – you guessed it: they are urinals in the *men’s* washrooms. *On ne parle pas des choses qui fâchent*.



On to other annoying things. I was going to regale you with Squirrel Buddy’s cute capers, but she is in my bad books, having chewn through the mosquito screens to access my stash of peanuts. So on to the next one: the offspring, who is travelling on her motorcycle [!] solo [!!] to Mexico [!!!] and is currently riding through Death Valley & the Mojave Desert. Warms the cockles of her mother’s heart, she does. Not much I can do: she is “*grande, majeure et vaccinée*” as the French say. She does, however, try to appease me with photos of plants. The desert is full of plants – and their adaptations to harsh environments make for interesting botany and biochemistry.



According to Wikipedia, “Death Valley is a desert valley located in Eastern California, in the northern Mojave Desert bordering the Great Basin Desert. It is one of the hottest places in the world along with deserts in the Middle East. Death Valley's Badwater Basin is the point of the lowest elevation in North America, at 282 feet (86 m) below sea level. [...] Death Valley is an example of a graben, or a downdropped block of land between two mountain ranges. [...] Death Valley also contains salt pans. According to current geological consensus, at various times during the middle of the Pleistocene era, which ended roughly 10,000–12,000 years ago, an inland lake, referred to as Lake Manly formed in Death Valley. [...] As the area turned to desert, the water abundance of evaporitic salts such as

Salt pan & saltbush



common sodium salts and borax, which were later exploited during the modern history of the region, primarily 1883 to 1907.”

So if this is where some poor plants have to survive, they had better have some serious adaptations. The desert USA website provides the following:

“To survive, desert plants have adapted to the extremes of heat and aridity by using both physical and behavioural mechanisms, much like desert animals. Plants that have adapted by altering their physical structure are called *xerophytes*. Xerophytes, such as cacti, usually have special means of storing and conserving water. They often have few or no leaves, which reduces transpiration. *Phreatophytes* are plants that have adapted to arid environments by growing extremely long roots,



Sagebrush



Creosote bush

allowing them to acquire moisture at or near the water table. Other desert plants, using behavioural adaptations, have

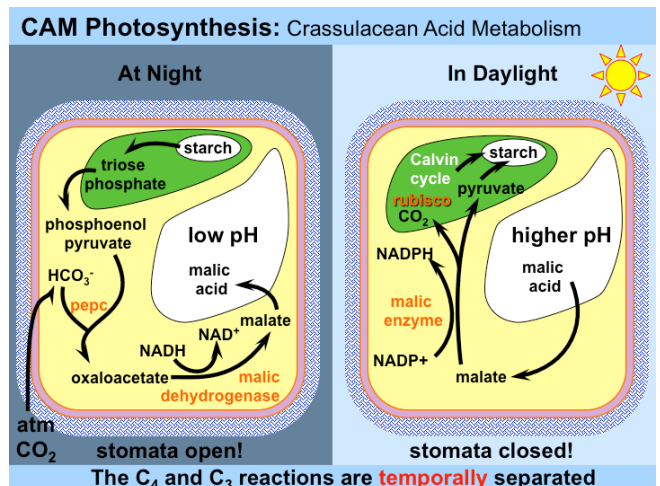
developed a lifestyle in conformance with the seasons of greatest moisture and/or coolest temperatures. These types of plants are usually (and inaccurately) referred to as perennials, plants that live for several years, and annuals, plants that live for only a season. Desert perennials often survive by remaining dormant during dry periods of the year, then springing to life when water becomes available.” [...] “Each of the four southwestern deserts offers habitats in which most xerophytic plants survive. But each is

characterized by specific plants that seem to thrive there. The Great Basin Desert is noted for vast rolling stands of Sagebrush and Saltbush, while in the Mojave Desert, Joshua Trees, Creosote Bush, and Burroweed predominate.” [...] Some perennials survive by becoming dormant during dry periods, then springing to life when water becomes available. After rain falls, they quickly grow a new suit of leaves to photosynthesize food. Flowers bloom within a few weeks, and when seeds become ripe and fall, the plant loses its leaves again and re-enters dormancy. This process may occur as many as five times a year. The term ‘annuals’ implies blooming yearly, but since this is not always the case, desert annuals are more accurately referred to as ‘ephemerals.’ Many of them can complete an entire life cycle in a matter of months, some in just weeks.”

“A necessity for any organism that is to survive in the harsh desert climate is water. Without water, the functions that support life in an organism will begin to fail and the organism’s life will be threatened. Plants have adapted in a number of ways that help them accumulate water. Plants in desert ecosystems are most prolific near riverbeds. Whether dry or wet, these areas often contain water underground and plants are more likely to survive if their roots can reach a reliable water supply. These are also the most likely places for water to accumulate in the case of rain. When the water comes, the plants will be there to receive it. Fog is also a reliable water source in deserts where the conditions are right for it. Air condenses to form dew in the cool mornings. The dew is captured on the plant’s leaves and hairs.”

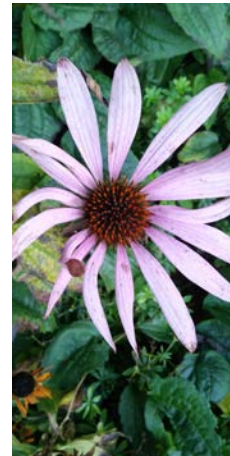
[...] “Structural adaptations are also important to plant’s survival in the desert. Wax coatings on leaves prevent water loss through evaporation, which in the hot desert can cause loss of water from both the surface and the inside of leaves. Leaves are also smaller on desert plants, further reducing the possibility for water loss. [...] Deciduous plants in desert ecosystems have adapted through the activity of their leaves. Leaves on these plants are typically smaller and coated with wax to prevent evaporation. [...] Succulent plants such as aloes are equipped with fleshy leaves that contain much of their water. Plants such as aloes are equipped with fleshy leaves that contain much of their water supply. They typically feel spongy and when cut open are filled with a pulpy flesh, protected by a waxy outer layer. [...] Many plants in the desert conserve water by not having any leaves at all. Cacti are the most prolific of this plant type. Many cacti have spines in place of leaves, which conduct photosynthesis and catch dew when the climate is right. These small structures also reflect light, further reducing water loss. During heavy rains, cacti will grow temporary root systems and absorb water. They will then shed the roots when the ground has dried

So not only do desert plants adapt by having short life-cycles, water-impermeable coatings, reflective spines rather than leaves, extensive and disposable root-systems – but they also avoid animal predators in search of water. Spines are the obvious, but toxicity and camouflage are also adaptive



mechanisms. The most interesting, for my little biochemist heart, is drought avoidance by CAM photosynthesis.

Plants usually absorb carbon dioxide during the day through stomata in their leaves to perform photosynthesis. However, openings of the stomata also lead to the loss of valuable water through evapotranspiration. Desert plants cannot afford to lose water, and therefore some plants perform crassulacean acid metabolism (CAM) photosynthesis for carbon fixation. In CAM photosynthesis, stomata remain closed during the day but open at night to absorb carbon dioxide, which is then stored in the vacuoles as malate [malic acid]. During the day, malate is transported to chloroplasts, where its reconversion to carbon dioxide allows the remaining steps of photosynthesis to occur. Yuccas, xerophytic bromeliads, and epiphytic orchids are examples of plant species that perform CAM photosynthesis.



BUDGET – 2020

Revenues:

Plant Sale: Until we have a longer track record of the revenues at our new location, for budgeting we used a lower amount than the 2019 actuals, but a higher amount than the 2018 actuals from our previous location.

Expenses:

Rent: Although our rent at St. Stephen's remains unchanged we are assuming that the expected renovation of the hall will force us to hold a couple of meetings at a higher cost location.

Hospitality: Includes refreshments at our general meetings and the members' garden tour. We are increasing the amount because of inflation and our larger membership.

Plant sale: Includes the booking of St. Stephen's, soil, flyers, signs, etc. The amount is reduced from 2019 as some of the expenditures in 2019 were one-time expenditures including those required for new and updated signs because we changed locations.

Speakers: Provides a stipend for our speakers. We are increasing the amount to insure we can get top-notch speakers.

Sunshine and Door Prizes: Includes door prizes, cards for members, and small thank you gifts for exiting executive and committee members. The amount is increased for general inflation and the large number of executive and committee members completing their duty at the end of 2019.

Donations: Assumes 50% of net plant sale proceeds will be given to non-profit organizations. The exact amount will be reviewed with the membership after the results of the plant sale are known.

Field Trips: This is the contribution of the Club towards the costs of our field trip(s). The amount is increased to provide better options for the trip(s). It is understood that at that level of contribution, there will not be any limitations on the number of spaces available on the trip(s).

BCCGC: Includes the cost of liability insurance covering the club's activities; and attendance for two members at both the spring and fall general meetings of the BC Council of Garden Clubs. The amount is slightly increased as the insurance cost will increase due to our larger membership.

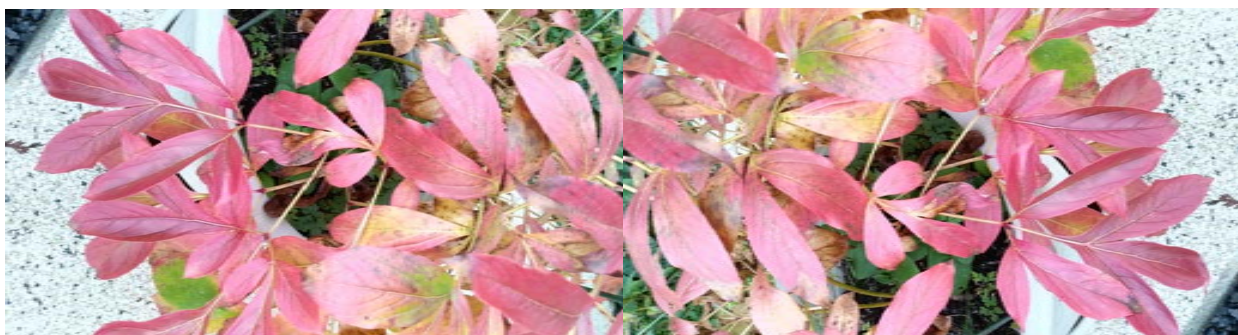
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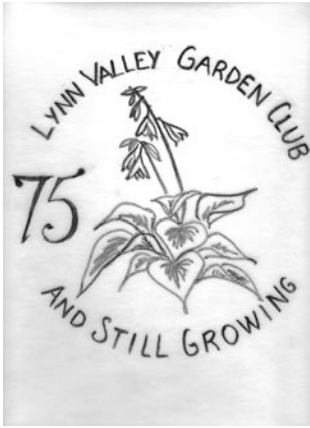
The proposed budget has a shortfall of \$1,665 for 2020. This is mainly due to the increase for the field trip(s) and lower budgeted net proceeds from the plant sale. The shortfall will reduce our reserve from \$9,096 forecast at the end of 2019

to \$7,432 at the end 2020. At this reserve level, the Club could continue to operate for not quite two years without a Plant Sale.

	2018 Actual	2019 Budget	2019 YE forecast	2020 Budget
Revenue				
Membership	2,325	2,400	2,850	2,850
Guests	315	250	90	90
Plant Sale	5,338	5,000	8,256	6,500
Plant Table	228	120	120	120
Total Revenue	8,737	7,770	11,316	9,560
Expenses				
Rent	922	800	800	1,000
Office	196	200	200	200
Misc	20	30	30	30
Hospitality	432	500	535	700
Plant Sale	650	1,000	1,205	1,075
Speakers Sunshine & Door Prizes	1,200 555	1,800 500	1,800 400	2,250 750
Donations	2,800	2,000	3,500	2,700
Newsletters & Postage	319	340	240	250
Christmas Party	257	400	400	400
Field Trip	92	300	300	1,300
BCCGC	418	510	450	500
Bank Charges	60	70	50	70
Anniversary Celebration		1,000	1,000	
Total Expenses	8,452	9,450	10,910	11,225
Net	285	-1,680	406	-1,665
Plant Sale net	4,688	4,000	7,051	5,425
Reserve at year-end	\$ 8,690	\$ 7,010	\$ 9,096	\$ 7,432

Note: The 2019 Year End forecast was prepared at the end of August 2019.





Lynn Valley Garden Club

2020 Registration Form

(Jan 1, 2020 to Dec 31, 2020)

- Annual membership fee is \$20 per person or \$35 per couple
- Renewals must be received by December 31, 2019. After this deadline, new members will be accepted from the waiting list.
- If paying by cheque, make it payable to 'Lynn Valley Garden Club'.
- Postdated cheques (December 31, 2019) will be accepted. Cheques will not be cashed until after January 1, 2020
- Complete the form and attach payment. Either bring form & payment to the next meeting or mail form & payment to:
Lynn Valley Garden Club, P.O. Box 16053,
1199 Lynn Valley Rd., North Vancouver, BC. V7J 3S9

Last Name: _____ First name: _____

Address: _____

City: _____ Postal Code: _____

Phone number: _____

Email: _____ [to receive the newsletter]

Would you consider helping with a committee
or taking an executive position in the future? Yes _____ No _____

Do you want your phone number included
on the membership phone list? *** Yes _____ No _____

Do you have a suggestion for a speaker or a topic? _____

Paid by Cheque #: _____ Cash: _____

QUESTIONS??? Email: lvgc.membership@gmail.com

**** All LVGC email addresses & phone numbers are private information and are only to be used at the discretion of the executive.*