THE SEEDLING

The Newsletter of Burnaby and Region Allotment Garden Association
BARAGA , Volume 29, Number 4, December 2010

# 2011 BARAGA AGM

**Time and Place**:The BARAGA Annual General Meeting will be held on January 15th, 2010. Time: 1:00 P.M. As usual it will be held in the Lions Hall at 5024 Rumble Street in Burnaby.
**Business**: The business of the meeting will include the President's report on the state of the garden, approval of the 2010 budget and election of officers for 2011.
**Elections**: Members will be electing a President, Vice-president, Treasurer, Secretary and Directors (the number is determined by motion at the meeting). All members of BARAGA Iin good standing - means dues are paid - are eligible for election; you may nominate any member for any position - providing you have their assent - either by prior nomination or at the meeting. Members may also nominate themselves. BARAGA, like many others, needs and encourages new faces in their organization.
**Nominations:** Members can submit their nominations for BARAGA positions to Camilla Dietrich either by mail to 214 - 67 Miner Street, New Westminster BC V3L 5N5 or by email to dietrich@sfu.ca.
**Door Prizes and Refreshments**: There will be door prizes and light refreshments will be served following the meeting. This is an opportunity for members, especially new members, to meet each other. There will be some time available for questions and an opportunity to input ideas.
**Renewals**: Membership renewals will be processed between 12:00 and 12:55 P.M. before the meeting begins. Members should bring their completed and signed renewal forms with them. Please bring your cheque, dated before February 1 and include everything in the envelope mailed with the renewal form.

**Renewal Rates: regardless of other figures the correct rates for 2011 are:**
**Renewal with no volunteer hours - $100**
**Renewal with volunteer hours - $65**

**Proposed Change to Policy:** Trees and Shrubs on Members Plots:

✦ Planting of non fruit bearing trees on members plots is prohibited
✦ Fruit bearing trees are limited to seven feet in height and must be placed in such position as to not overhang any pathway at any time or shade another plot from May until October
✦ All existing tree and shrubs over 7 feet on a

members plot are to be trimmed back to 7 feet when dormant or must be removed by January 1, 2012.

This policy would be added to the Handbook, Chapter 11, following the policy on "Cultivation of Plots."

## Structures at BARAGA

by Pat Kavanagh

All structures on your BARAGA garden plot must be safe, sound, tidy and well maintained. In addition there are restrictions to the area, height, and location; this is to reduce shading and to promote vegetable gardening.

The following is a summary of Structure Rules:
✧ only temporary structures are permitted, easy to remove (without concrete footings)
✧ all structures should be maintained in good repair
✧ no storage of materials on the plot (just your gardening equipment)
✧ all building waste/garbage to be removed to BARAGA dumpster
✧ for safety, minimize all hazards, for example:
- NO GLASS due to breakage hazard (use plastic or plexiglass instead)
- no WOOD PLANKS or hoses on paths (slipping or tripping hazards)
- no hazardous protrusions (eye poking and impaling hazard)
- no dangerous materials
✧ maximum areas: greenhouse 200 $ft^2$, shed 100 $ft^2$
✧ maximum height: <7 feet, fences <30" tall
✧ locate high structures in plot centre to prevent shadowing neighbours
✧ all structures >6" from pathways (for unimpeded path access)

Building Approval
Please inform the BARAGA directors *in writing* of your plans to build or modify major structures on your garden plot. You may be required to remove, upgrade or alter any structure deemed not to comply with BARAGA policies.

Here are some Tips for Easy Maintenance:
✧ Minimize wood use on your plot, especially in direct contact with ground or exposed to rain, since wood rots over time (pile soil into garden beds rather than using wood borders to avoid the use of lumber).
✧ Do not treat wood with chemicals, paint, or stain as some chemicals are ecological & health hazards.
✧ Remove plastic sheet when not in use to reduce weathering damage.

"Structures" include greenhouses, sheds, and fences plus other built units such as garden bed framing, compost containers/frames, cold frames, plant support stakes/frames/trellis, etc. For details on allowable structures, please read the BARAGA Handbook section 11 (and policy updates in BARAGA AGM minutes).

# Keeping Bees at BARAGA information for members

by Don Hatch

BARAGA's constitution stipulates the allotment gardens are for recreational fruit and vegetable growing. The bylaws exclude bringing livestock (animals) onto the site and this includes honeybees. This bylaw has always been in the bylaws.

There are municipal restrictions on the keeping of bees; the present residential regulations do not apply to BARAGA allotments as we are in an agricultural land area. Agricultural land may have honeybees but it is up to the discretion of the property holder to allow honeybees. BARAGA is the property holder as a registered society and it is the responsibility of the Board of Directors and the general membership who vote on bylaws to uphold the bylaws and regulations that are in place.

In order to further insure that the original regulation concerning livestock at BARAGA including honeybees not be kept on individual plots the membership voted at the annual general meeting in January 2010 to put into place a specific regulation not allowing honeybees on individual plots. The safety and well being of all members was the prime reason for this regulation but also the probability of disease carried to other hives and the costs of associated treatment.

One member without asking permission of the Board of Directors brought beehives onto his plot in the summer of 2008. When the board discovered the hives we began a process of seeking out information and government regulations concerning bee keeping and the associated problems. At one point in time the member was told he could not keep the hives but ignored the request to remove them. In the interim another member chose to place hive boxes on his plot this year. The Board of Directors were forced to send a letter demanding both plots remove the bees and equipment or the plot rental agreement would be terminated. The equipment on one plot disappeared and on the second plot a registered termination letter was sent.

The Board of Directors' years ago decided to have beehives to increase the pollination of our gardens. The beehives have been kept in a restricted area that has been fenced and not readily accessible by the general membership especially children. You can't ensure that neighbouring plot members will feel comfortable or safe having bees on the plot next to them.

Hard working bees in a healthy hive.

The volunteer members who tend BARAGA's hives are opposed to the introduction of other beehives because you can't guarantee that individual beekeepers will follow good beekeeping practices such as disease and mite control that could jeopardize the health of our BARAGA bees. Disease transfer from hive to hive is very common. Keeping hives healthy is time consuming and expensive. Any change of

the policy could open the floodgates to unregulated beekeeping and potential dangers to the personal welfare of other gardeners or their children. The BARAGA bee keeping team has a core group of professional beekeepers. The team can manage sufficient numbers of bees for the pollination of our gardens in a safe manner in a fenced restricted area. There is no need for more bees. It is unlikely that added colonies of bees would significantly affect the production of fruit and vegetables the gardens.

## Starting Seeds

If the current weather predictions (that this La Nina year will bring a longer, colder than usual winter) come true, gardeners may be looking for a way to foil the cold and get their crops off to a quick start. One way to do that is to plant seedlings in favourable conditions until they are less vulnerable to the vagaries of the weather, then transplant them when growth is well under way. Even if the dire forecasts do not happen an early start always feels like stealing a march on the weather.

This technique will work well for a number of crops. What you need is:

**A Controlled Environment**: what the gardener must have is a sheltered location in which young plants can flourish whatever the weather brings. Sometimes a bright sunny window sill is sufficient. A covered balcony where seedlings can enjoy good light by day and be brought back inside for protection at night will also work. A miniature greenhouse or a propagating case, homemade or purchased, will do fine. As long as the day temperature can be maintained a little warmer than the weather, there is plenty of good, strong light, and the amount of moisture reaching the plants can be controlled, most seedlings will flourish and get off to an early start.

**An Investment in Time**: cosseting seedlings involves plenty of attention and some time. Planting a couple of seeds in a pot is easy; it is the daily (sometimes twice daily) care that requires diligence for success. Be sure that the important cultural requirements (usually on the seed package) are noted and followed.

**Some Basic Equipment**: many will have the basics right at hand. Suitable containers can be old flower pots, reused plastic trays, peat pellets, discarded milk containers, etc. The essential qualities are sufficient room for roots to grow and allowing easy transplanting. Ideally a soil-less mix is available, but any fertile soil that allows good drainage will work. Some soil from the allotment amended with a little compost would be fine. The problem with using garden soil is the weed seeds that will need culling and the chance of introducing fungal and other undesirable organisms.


**Germinating Seeds**: Seeds are sensitive to temperature and moisture. Generally no seed will germinate at a temperature of zero, but the percentage of germination increases as temperature rises to the low twenties

Celsius. So a few days in a warm spot, eg. near a heat register or on top of a refrigerator, may stimulate fast germination. But beware of drying out. Little light is required initially; the seeds will first attempt to establish roots. When the first leaves appear good light, rather than heat, becomes critical.

**Hardening Off**: seedlings raised in hot house conditions will likely perish if immediately exposed in the garden, so need to be gradually acclimatized to harsher conditions in preparation for planting out. A few hours exposed in warm daylight at first can be gradually increased until the seedling is ready for full exposure.

Transplanting: when deciding which crops to start as home raised seedlings, give some thought to when the seedlings will be required. Then work back from that date and decide the optimum time to get the plants started.

Another important consideration is "tranplantability", the consideration of whether a particular plant can be successfully grown in a pot and then moved to a permanent position in the garden. Parsnips (and other crops) must be sown where they are to grow. On the other hand such crops as the cabbage family, onions and leeks generally recover quickly and grow well. Vegetables like beets and corn are debatable candidates for transplant, but it can be done with care. Gardeners are often recommended not to try transplanting peas and beans, but it is possible with minimal root disturbance.

**Other Considerations**: while heat and light are fairly easy to maintain humidity in the air is often problematic when growing indoors. Seeds need higher humidity than is desirable in the home, so consider how to provide this without over-watering. A partial cover or a gravel tray or both may work.

Some seedlings can be started in a small pot, then "pricked" out to an intermediate size, before getting large enough to transplant.

If possible choose a mild, cloudy day to transplant; it gives the seedling a chance to establish themselves before being stressed by their new environment.

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## The Living Soil

If you grab a hand of soil what exactly do you have? For starters it is not "dirt". Dirt is something mechanics get on their overalls, hands and face when they crawl under a car. Soil may stain your hands, but a quick look at its composition will demonstrate how different it is.

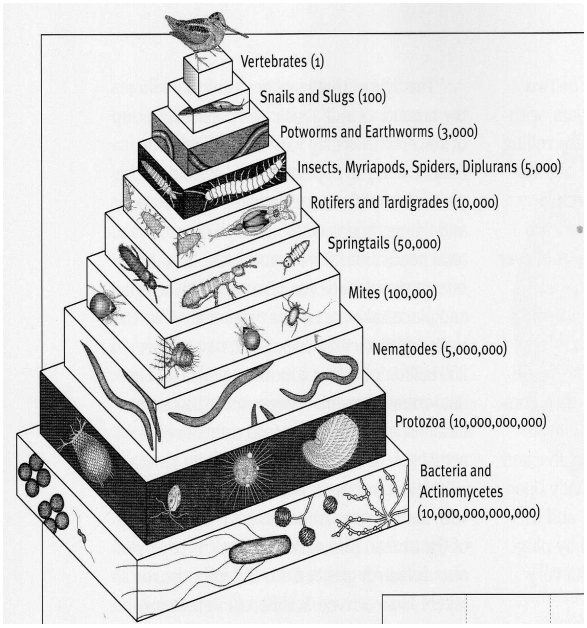
Firstly there is inert matter, the minuscule particles of rock whether they be gravel, sand, clay or loam. Secondly there is detritus - dead material derived from what was once living organisms - plant or animal. Lastly is a large component very much alive. That is what this article is about.

Many insects spend most of their immature lives grubbing in the soil and ultimately enjoy a few days of visibility when they take wing to breed. Then there are creatures such as sow-bugs, earthworms, millipedes, centipedes, spiders, slugs and snails - all living in this medium.

But if you eliminate all of the above and other visible creatures there are still others too small to be seen by human eyes; they are the major components of the living soil. They are the major contributors to the soil's fertility. Their activities make it possible for plants to

grow and flourish.

Although you can't see them, don't be fooled, they are there in abundance. There might well be a rule: the smaller the organism, the more abundant it is, and the greater its importance to everything and certainly to the gardener.



Nardi: Typical inhabitants found in a square metre of garden soil.

**Bacteria**. These are the smallest independent life form. They are quite invisible without a microscope and consequently they remained unknown until Louis Pasteur and others began to describe them less than two hundred years ago. Bacteria inhabit almost everywhere; they are found in the most unlikely places from ocean depths to two miles below the surface of land. They are so small 5,000 might be found across a finger nail; in a hand full of soil there might be a billion; in a cubic metre of soil they can be measured in trillions.

Bacteria of some kind are capable of breaking down almost every substance on earth. Consider how much growth is going on; a grass lawn must be mown every week; trees starting as inch high sprouts grow into 300' giants over time; every creature grows old and dies. Somehow all that vast amount of dead material is returned to its elements. One potent agent in this recycling is bacteria. Bacteria breakdown massive amounts of dead organic matter and recycle all eighteen essential elements so they are available to new plant growth. Bacteria can also metabolize and detoxify many pesticides and pollutants.

**Fungi**. Two type of fungi are to be found in all soils. One is mycorrhizal fungi (discussed in a previous Seedling). The other is saprophytic fungi. A saprophyte is an organism that makes its living by breaking down dead material, serving a purpose much like bacteria. In particular some fungi produce enzymes that breakdown cellulose, chains of simple sugars in plants, and lignin which is the tough compound that holds cellulose together. Only fungi can do this. Many species of fungi are to be found in soil (and compost piles), usually invisible to our eyes because they consist of microscopic threads called hyphae.

**Protista**. These are simple one celled animals called protozoa. They are small but very numerous. They make their living from eating bacteria, fungi and detritus.

**Algae**. All three of the above groups (bacteria, fungi, protozoa) are given their own kingdoms by modern classifiers. The organisms we call algae are a diverse group that partly fall into both the bacteria and plant kingdoms; some are closely related to single celled animals. The importance of algae is their numbers in soil and their ability to make food from sunlight. They are the lowest rung, but the prime and most important members of the food chain. Both their ability to make food and their

usefulness as food make them key contributors to the soil. Algae are not much noticed in soil; it is the large aggregations of algae in water that usually makes them visible.

One of the key ingredients in plant growth is nitrogen. While nitrogen is quite common it must be obtained by plants from the soil and only three organisms are known to produce (fix) nitrogen: bacteria (rhizobia), actinomycetes (a type of bacteria) and algae. These bacteria invade the root hairs of certain plants by the millions and produce special growths (nodules). It is estimated that 140 million tons of nitrogen are added to the soils of the world in this way every year.

This is by no means an exhaustive list of the soil's inhabitants, most of which are invisible to human sight. Rather than give numbers a diagram is reprinted (opposite page) from The World Beneath Our Feet by James B. Nardi (a book likely only available in a library). It is a fascinating book, but as this diagram shows most of the important living things in the soil are so small they escape our attention. They are there however in huge numbers. Plants and animals may seem the important part of the world to us humans, but the truly significant part is what usually escapes our sight.

What relevance does this have to the gardener? Whether we are meat eaters or vegetarians ultimately all our food derives from plants and most plants grow in and are dependent upon the living soil. Keeping that very thin layer of material - what we call "soil" - that covers most of our land surface healthy and in place is essential to our well being.

There are practical things gardeners can do to protect their soil, allow its inhabitants to prosper and hence increase the usefulness of the soil for the gardener.

1. **Protect against erosion**. Exposed soil is vulnerable to be washed or blown away. There is little possibility of wind erosion at BARAGA but heavy rains in fall are capable of leaching nutrients out of the soil or deep into the ground where they are no longer available. Almost any cover at all over the winter months is better than bare soil. Cover crops can be planted and dug in spring, a thick mulch (leaves, grass clippings, chopped plants including weeds, etc.) offers protection, or a black plastic sheet will serve well. Even a layer of weeds or the spent remains of last year's crops gives protection where bare soil does not.

2. **Avoid excessive use of fertilizers**. Every crop removed from the garden depletes the nutrient level. A way to replenish the soil is essential. The traditional way to do this was the application of manure of many kinds or compost. Recently synthetic fertilizers were favoured to grow crops; while this works in the short term, over a period of time the soil becomes progressively sterile (necessitating higher and higher levels of fertilizer to get a crop)if humus in some form is not replenished.

3. **Maintain good soil structure**. Compost and manures not only add nutrients to the soil. Their presence helps the soil structure, the soil clumps together to retain moisture rather allowing rain to wash through it leaching nutrients. There is no substitute for high levels of organic matter and the more organic matter present the better. Gardeners can also profitably save their backs and do a minimum amount of cultivation; provided it is not compacted, undisturbed soil works best to maintain levels of nutrients and water.

4. **Work towards an balanced pH level**. Acid rain is not the great threat in our area that it is in some parts of North America. However

maintaining a balanced pH (usually by adding lime) in BARAGA's normally quite acid soil will help provide the right conditions for many micro-organisms to flourish, it will ensure some of the trace nutrients are available to plants, and thus help the garden to flourish.

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**Seed Catalogues**: now is the time to order your seed catalogue for 2011, if you haven't done so already. We hope to have a supply of West Coast Seeds Gardening Guides available at the AGM, January 15th.

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**Seedy Saturday**: The original Seedy Saturday at VanDusen Garden's Floral Hall will be on February 26th in 2011. Other communities have developed their own events - look for them.

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✦✦ The BARAGA mailing address is:
Burnaby and Region Allotment Gardens Association
Box 209, 141- 4200 McKay Avenue,
Burnaby, B.C. V5H 4M9
✦✦ Otherwise call Don Hatch (President) and leave message at 604-433-8055 or email support@baraga.ca

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This newsletter was edited by David Tamblin. Views expressed in this newsletter are not necessarily those of BARAGA.

# Books for Christmas

One easy solution if you are looking for a present for the ardent vegetable gardener on your Christmas list is a book. A recent examination of the shelves of some area book store turned up a treasure-house of available books that should both please and guide your gardening bookworm.

Here are a few that caught the eye:

✦ Carol W. Hall & Norman E. Hall: Timber Press Guide to Gardening in the Pacific Northwest. (Aug., 2008).

✦ Linda Gilkeron: Backyard Bounty: Complete guide to Year Round Gardening in the Pacific Northwest (can only be pre-ordered).

✦ Carla Albright: Coastal Gardening in the Pacific Northwest (Mar., 2007).

✦ Mel Bartholomew: All New Square Foot Gardening; Grow More in Less Space (2006).

✦ Carolyn Herriot: The Zero-Mile Diet: a Year Round guide to Growing Organic Food (June, 2010).

✦ Gayla Trail: Grow Great Grub: Organic Food for Small Spaces (2010).

✦ These titles were selected more or less at random, but all appeared to have some special interest for the vegetable gardener in this area. They were all available at local stores, however they can undoubtedly be ordered at a saving from a warehouse supplier such as Amazon.

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