

THE SEEDLING

The Newsletter of Burnaby and Region Allotment Garden Association
BARAGA, Volume 28, Number 2, July 2009



2009 BARAGA Picnic

Saturday, August 8th at 3:30 P.M., is designated the day for BARAGA's annual picnic, an event that has now become a tradition. It will be held, as usual, near the Main Entrance and parking lot. (In the event of rain, it will be postponed until the next Saturday, August 15th.)

All members are welcome, so are their children and their guests. You may bring your friends or members of your family. Just remember to bring enough food to feed them. To help with preparation it is helpful to know how many to expect, so please sign up on the sheet at the office.

Please bring a contribution to the potluck dinner. It can be an appetizer, salad, casserole, or other main dish, dessert. If uncertain how much, enough for five is plenty. We often get and especially welcome

ethnic treats. Remember to bring your beer or wine, whatever you prefer to drink. BARAGA has some picnic tables, but can always use more tables. Extra chairs, either folding or plastic garden chairs, are always needed.

BARAGA will provide plates and cutlery (the disposable kind), also coffee, tea and soft drinks.

A main feature of picnic is the garden contest. Bring your flowers, vegetables, fruits grown at BARAGA to the competition and display. Valuable prizes will be awarded in several categories. For other entertainment remember to bring your garden games, bocce ball is popular. If you play an instrument this is a good chance to strut your talent after the dinner and contest.

BARAGA Honey will be for sale using a sign-up on the board in the parking lot. First come, first serve with a limit of two jars per gardener. We are still not sure of the quantities. Pick-up of the honey will be on the day of the Picnic.

- Ann Talbot

Board News and Views

Plot inspections: are done on the first Saturday of the month. Make sure your paths are clear of all weeds and you have no plants or structures that overhang your pathways.

Address Changes: Please send mailing address and/or telephone number changes to BARAGA, Box 209, 141 - 6200 McKay Ave., Burnaby, BC V5H 4M9. Changes in e-mail addresses should be sent by e-mail to support@baraga.ca.

Watering Hoses: Watering hoses should not be left on or across pathways between plots. They are tripping hazard. Please store your hose on your plot when not in use.

Rodents: We seem to have a rodent problem this year. Please do not use poisons at the garden as the City bylaws do not allow them. Instead use snap traps with peanut butter and brown bread as bait.

Fires: this newsletter is always harping about the danger of fire, but fire in peat soil would be devastating. In what promises to be a long hot dry summer please be extra cautious.

Seed Box: the box containing seeds for exchange is missing. If you know where it is please return it the office.

LAST PERSON OUT AT NIGHT - CLOSE THE GATE!

Donations for the Food Bank

We are off to a good start with earlier crops and generous contributions to the Plant a Row/Grow a Row project (Food Bank).

Produce from this program is the only fresh vegetables some recipients get. All kinds of contributions are welcome. Although the produce is protected, sturdier items survive the best until distribution is done.

Collection is from the box in the shade by the quonset on Saturday evening.



Water, Water, Water

If you were asked what is the most critical ingredient for life, what would you say? A good answer would be sunlight which supplies light and heat; but life thrives in deep oceans where sustained by thermal vents. Another suggestion might be oxygen, the critical ingredient in respiration; again there is plenty of anaerobic life. But can there be any life without water?

Most living things consist of more than ninety per cent water. Our bodies, the food we eat, the plants and animals around us, consist principally of water. Pure, clear, water is not usually a thing we think of much until we lack it. Gardeners are very dependant on it; this article takes a look at how plants use water, how they get water and what the gardener can do to supply it to them.

Water (and other substances) move by "diffusion"; diffusion is a natural law stating that substances move from areas where they are highly concentrated to areas where they are less concentrated. In plant cells diffusion is controlled by the membranes of the cell walls; this selectivity is known as osmosis.

While botanists find the mechanics of the cell fascinating, it is less important to gardeners. What gardeners need to know is that water enters the roots by diffusion, moves through the plant's pipe-like distribution system (called xylem), and exits through openings in the leaves known as stomata. Only about one per cent of water is retained by the plant, the balance evaporates into the air (a process called transpiration). This flow of water through the plant is sometimes described as a natural pump; water moves quite quickly from below ground level to the upper canopy of

trees as much as 300 feet tall by means of this pump action.

When a plant is full of water it is said to be turgid; when the water is depleted the plants wilt. Plants can stand varying degrees of wilting but a prolonged drought will cause permanent damage and death. Obviously a constant supply of water is beneficial and is especially critical to plants during growth and when setting fruit. Seedlings that encounter drought tend to become stunted and never recover their full growth potential. Fruit forming during a period of deprivation may be deformed or drop off altogether.

Some gardeners have to contend with clay soils with poor drainage so the soil does not aerate and roots rot or conversely with sandy soil where little moisture is retained and only frequent watering keeps plants alive. Fortunately the water table is high and the peaty soil at BARAGA is able to retain water much like a sponge. Adding organic compost to soil increases water retention, as well as adding soil minerals. The high water table means that usually little watering is necessary since plant roots can easily reach levels with adequate moisture.

During periods of average rainfall very little, if any, watering should be needed. It may help seeds germinate quickly if the soil is kept moist; seedlings transplanted to their permanent positions will need extra water. Some authors recommend a transplant solution - a weak mix of a liquid fertilizer in water. As plants develop their roots seek levels where moisture is readily available; plants with deep roots will reach near the water table; those over-watered will form shallow roots, very vulnerable when warmer drier weather

comes along.

Summers in our area tend to have long periods of hot dry weather with hardly any rainfall. The gardener can supply some of the missing water. There are good ways of doing this. One is to bury soaker hoses in the soil; this supplies water exactly where it is needed - at the root level. Another method (especially useful in a greenhouse) is a spaghetti tube system that delivers water to each plant individually; once in place this is very effective and speedy in delivering moisture. Watering with a hose and gentle soaker attachment can deliver water at the ground level; with good pressure a plot can be watered in less than an hour a week.

Plants need water at their roots; a thorough watering (every 7-10 days) that delivers right to the roots is most effective. Many automatic sprinklers and hand-held sprayers spread water everywhere; a lot of it evaporates never reaching the plant root and is wasted. Wetting the leaves of plants is a bad idea for another reason. Wet leaves are just what fungus spores need to stimulate growth; water is often the medium by which bacteria and viruses can move about and spread disease. Watering late in the day is a poor practice; the early morning is a much better time, if the gardener can manage it. Plants transpire at night which reduces the available water; the shorter the leaves are wet, the less chance of disease.

Peat retains water well, but once dried out is very difficult to wet again. A mulch covering the soil surface can slow evaporation of surface moisture. Crops that are planted fairly close will also serve the same purpose, providing a barrier to disappearing water.

An additional reason for faithfully removing weeds is the amount of extra water

that they transpire and thus deprive from the crops where it is really wanted.

Far from the commodity so easily taken for granted, water is an essential in successful gardening and wise use of it will help ensure a healthy and abundant crops.

Community Gardens - a Growing Demand

BARAGA has a waiting list for available plots. So do other operators of allotment and community gardens. There is pressure on local cities to find more land for eager gardeners.

An organization, Shared Backyard, was recently featured in the NewsLeader; the aim of this group is to connect people who own little used backyards with would-be gardeners who have no soil or space.

Vancouver Community Agricultural Network is looking at ways to increase public participation in growing their own crops.

A number of recent trends have culminated in a greater awareness of the value of the home vegetable garden. Probably the foremost is the knowledge of how little of our food is grown locally and how much we depend on imports to fill our needs. Rising fuel and transportation costs have driven food prices higher. Farmers in California where much of our winter food originates are faced with a growing water shortage. Not only are people becoming increasingly aware of our potential food crisis, but they are doing something about it. Others want to beat high food prices by producing at least in part some of their own food. Witness the record level of vegetable seed sales this year.

Another trend is the desire for organically grown food, food that gets to the table without the chemical fertilizers, herbicides, fungicides, and insecticides involved in so many commercial crops. And, let's face it, how can a crop grown two thousand miles away, artificially ripened, handled by half a dozen different parties, ever compete with food freshly picked and immediately served?

But, perhaps, the happiest trend of all,

Spying on the Neighbours

Have you ever visited other allotment or community gardens? You may be surprised how small some them are. But they are often ingenious and productive and offer examples of how to utilize small space. Especially interesting the are those with composting demonstrations

is the discovery or, perhaps, rediscovery by some people that vegetable gardening is fun. It is a chance for the whole family to do something together in fresh air, to get healthy exercise, and to realize the achievement of raising their own crop. For apartment and townhouse dwellers who have little or no land of their own, renting an allotment, or participating in a community garden or orchard, may satisfy a basic need.

A number of opportunities seem to be opening up. While some may want their own allotment and be prepared to wait for a couple of years until one becomes available, there are ways to get gardening sooner. It is reported that Coquitlam will make twenty acres of the Colony Farm into new allotments. Community gardens, gardens which are jointly gardened by a group of people (as opposed to individual

allotments where the land is divided among them) are becoming increasing common. Community orchards, run on the same lines, are also a possibility.



Main Avenue of allotment gardens at BARAGA

BARAGA gardeners can consider themselves fortunate in many ways. They are members of a well established allotments garden; they enjoy relatively large plots with water and tools accessible. While theft is an occasional problem, other gardens have much larger troubles. Although some gardens are cheaper (much smaller plots) BARAGA offers relatively inexpensive membership and plot rentals; and the volunteer hours are much less onerous than some.

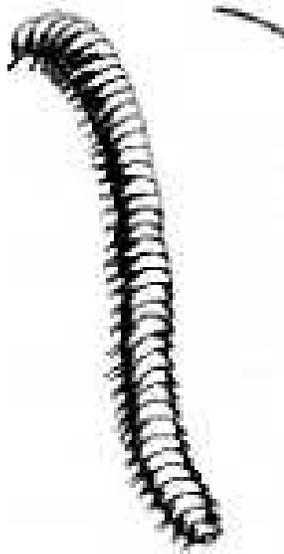


With nicely spaced crops and no weeds a productive plot

Centipedes and millipedes

Gardeners will encounter both millipedes and centipedes from time to time. They like to hide underneath lots of things, sticks, old lumber, rocks, compost piles, almost any old debris, especially if the humus content is high.

While we tend to lump the two together (they are both long, wiry, wiggly critters) the zoologist has them classes apart (Diplopoda and Chilopoda).

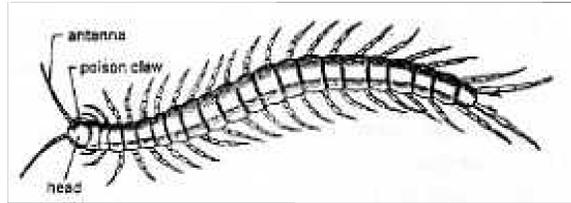


Millipedes are long tubes consisting of numerous sections (the technical word for these sections is "somites"). The head has simple eyes, two short antennae and two jaws. The thorax (the next four sections) have two legs each. The abdomen (up to another 100 sections) has four short legs per section. With each molt the millipede will add more sections to its body

length. Having all those legs one might expect a millipede to speed away from its enemies. Actually it is rather slow and tentative when moving around; when attacked it curls up into a protective spiral.

Millipedes mainly live on detritus - decaying vegetable matter. As such they are

part of the great clean up of spent vegetation. Some, however, are known to attack living plants, and a few are predatory.



Centipedes are much flatter than millipedes. Their legs tend to be much longer. They are speedier and quickly disappear if threatened. There are only two legs to each section. Their antennae are much longer. They have formidable four-jointed claws that inject poison. Fortunately most centipedes, especially the big ones (up to eight inches long), are creatures of warmer climates.

While a centipede bite can be quite painful for a human it is usually reserved for the species that they prey on. Their food can consist of insects (of many varieties), spiders, slugs, earthworms and other small creatures. Since centipedes never attack plants, but often attack creatures that do, gardeners in the know will value their centipedes and, perhaps, treat them with a certain caution.



A Spectacular Border with lilies and lupins

Fungus Roots Explained

Two trees are grown in nursery; both have similar soil, ideal nutrients, and the same environment. After couple of years one is two feet tall, dark green and brimming with health; the second is a mere six inches and rather sickly in appearance. What has caused this big difference? The answer is simple; the vigorous plant has a fungal partner; the weakling does not.

Until the invention of powerful microscopes a lot of the natural world and its functions were unknown. Bacteria were a subject of speculation and the fungi were mysterious plants that grew quite at random. But a close inspection of fungi under high power magnification revealed that many plant roots were covered with fine fungal hairs, miles of them, rather like cotton wool, usually invisible to the naked eye. These fungal hairs were called mycorrhizae.

Mycorrhizae (rhymes with “my sore eye”) is just a combination of two Greek words and means “fungus root”. Fungi that form mycorrhizae are symbiotic (partners that benefit, even require, each other). The plant produces food in the form of simple sugars from photosynthesis and passes this on to the fungus. The fungus consists of masses of fine hairs that act as extension of the plants root and can provide mineral elements (all fifteen of them) and water to the plant. A seedling tree with a fungal partner has a decided advantage over one that does not.

It turns out there are literally thousands of species of mycorrhizal fungi. These fungi are present in most soils and their spores, minute and invisible, are floating through the air. Bryce Kendrick, author of a mycology textbook, states that 380 of 400 plant families are known to associate with

fungi. 95% of the trees in the forest have mycorrhizal partners.

Orchids are an interesting illustration of the role of fungi: the mature orchids may not need fungal partners to flourish, but their tiny seeds will not germinate and grow without an appropriate mycorrhizae. Early importers of orchid seeds (which are very small and contain little nutrients) could not raise seeds to make new plants until they discovered that seeds fallen around the base of the parent plant (where there was abundant fungal connections to supply nutrients) grew very well.

What does this all mean for the gardener? Well, it explains why crops grown in compost enriched soil, which includes mycorrhizal fungi, compares so favourably with crops receiving the full fertilizer treatment. While trees, shrubs and other perennials are more likely to develop fungal partnerships, even short term vegetables can grow better with fungi to provide additional nutrients to the roots. A living soil, undamaged by chemical additives, but liberally supplemented with compost will offer the benefits of mycorrhizae.

Do you need to add mycorrhizal fungi to your soil to improve its fertility? The answer seems to be “No.” The fungi are already abundantly supplied in a good organic soil; there is no need to add them. One soil scientist the author consulted suggested the best soil improvement was to add glacial rock dust containing the trace minerals; adding fungi is not necessary if the needed minerals are there and futile if they are not.

Interested gardeners might like to look at the Fungi Perfecti website

(www.fungi.com/mycogrow/) which offers a product called "Mycogrow". They will also find a link to a lengthy article by Dr. Mike Amaranthus describing the action and benefits of myccorrhizal fungi.

Garden Meditations:

Contributed by Chrisian Rumpf

Let us give thanks for a bounty of people. For children who are our second planting, and though they grow like weeds and the wind too soon blows them away, may they forgive us our cultivation and fondly remember where their roots are. Let us give thanks for generous friends with hearts and smiles as bright as their blossoms; for feisty friends as tart as apples; for continuous friends who like scallions and cucumbers keep us reminded that we have had them; for crotchety friends sour as rhubarb and as indestructible; for handsome friends who are as gorgeous as eggplant and as elegant as a row of corn; and all the others as plain as potatoes and so good for you; for funny friends who are as silly as Brussels Sprouts and as amusing as Jerusalem artichokes; and serious friends as unpretentious as cabbages, as subtle as summer as summer squash, as persistent as parsley, as delightful as dill, as endless as zucchini, and who like parsnips can be counted on to see you through the winter; for old friends nodding like sunflowers in the evening time, and young friends coming as fast as radishes; for loving friends who wind around us like tendrils and hold us despite our blights, wilts and witherings; and finally for those friends now gone, like gardens past that have been harvested, but who fed us in their time that we might have life thereafter. For all these we give thanks. (Rev. Max Coots)

Info About BARAGA

◆◆◆◆ The BARAGA mailing address is:
Burnaby and Region Allotment Gardens
Association
Box 209, 141- 4200 McKay Avenue,
Burnaby, B.C.
V5H 4M9

◆◆ Contact phone number for plot rental or getting on the wait list is 604-842-8571. Please note that the waiting time for a plot is now about two years.

◆◆ To contact the president Don Hatch call 604-433-8055 and leave a message please. You may also e-mail us at - 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.
