

THE SEEDLING

*The Newsletter of Burnaby and Region Allotment Garden Association
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2008 Membership Fees

Members at the 2006 Annual General Meeting changed the due date for collection of annual membership and plot rental fees to January 31. This means that membership and plot rentals must be complete by January 31. If you are likely to be away from the Lower Mainland for the early part of winter, you should make arrangements for renewal of your membership before you leave. You may pay your fees with a cheque post-dated January 31, 2008.

2008 membership and plot rental fees will be \$90. The fees will be reduced by \$35 for plot holders who have volunteered six hours during 2007 on Board approved activities. To receive the reduction you must submit a time slip. Make sure you submit your time sheet by mid-November.

Renewal notices for 2008 will be mailed approximately December 1.

Associate membership fees for 2008 will be unchanged at \$10.



Fall Clean-up Now

The BARAGA By-laws stipulate that all plots must be cleared and made tidy by November 1st of each year, except for actively growing winter crops or perennials.

The Things Plants Need

and how the gardener can supply them

Starting with the obvious ones this article looks at the essential ingredients for plant growth:

Sunshine: goes without saying. It is the vital element in photosynthesis, the ultimate source of all food. Almost all vegetables need as much as they can get. Many flowers, however, will tolerate partial shade.

Water: another given. Since a high proportion of every plant consists of water, some supply of water is essential, but the need is very variable.

Air: three elements make up 95% of a plant; they are oxygen, hydrogen and carbon. All three are readily available in the air and in water. All the gardener can do is ensure the soil is cultivated and not compacted, starving the roots of oxygen. Soggy or wet soil can also starve a plant.

Nutrients: plants need a good supply of some of the elements. The three best known are nitrogen, phosphorus and potassium (referred to as NPK). They are the basic ingredients of all standard fertilizers. While they are

usually available in the soil, removing crops depletes the supply and the gardener must replenish them. Compost, manure, fertilizers, etc. can all help. There are three other major nutrients: calcium, sulphur and magnesium. If the soil has a balanced pH (acid/alkaline level) and reasonable nutrient level to begin with all three of these are likely to be available in sufficient quantities and the gardener does not have to worry about them. Since at BARAGA we have acidic soil, calcium in the form of lime needs to be added every few years.

Trace Elements: plants need several other elements - in minute amounts. The absence (more likely deficiency) of elements such as iron, boron, manganese, copper, zinc, and molybdenum can lead to strange plant diseases. Fortunately there is usually a sufficient supply; while an acre of vegetables might require one hundred and fifty pounds of nitrogen, a mere ounce of boron is enough. Compost, which is broken down material from former plants, is a great source of trace elements. Some balanced fertilizers incorporate trace elements, often synthetic fertilizers do not. Scientists have demonstrated that chlorine, nickel and cobalt must also

be present for the growth of plants, but in such small quantities, the gardener can safely ignore them.

Silicon: plants grow better (resist disease) if the element silicon is present, but it is not essential. Sand is naturally rich in silicon). Silicon is present in greensand (sometimes used to boost potassium).

Looking at Fertilizer Labels

When the gardener looks at labels on fertilizers three numbers spring up; they refer to nitrogen, phosphorus and potassium (N,P,K), three major elements in plant nutrition. A typical label might read "4-5-4". This is what it means:

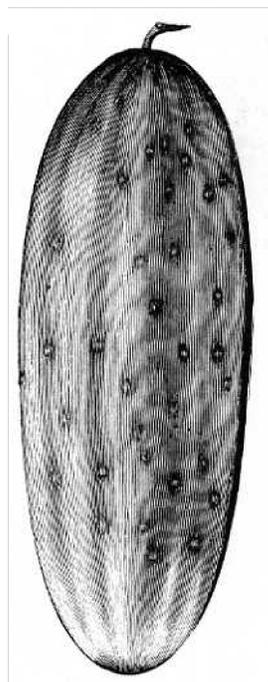
The first "4" refers to nitrogen: 4% of the fertilizer in the package is nitrogen. The middle "5" refers to phosphate (not pure phosphorus): 5% phosphate is available in the fertilizer in the first year - there may be more subsequently available.

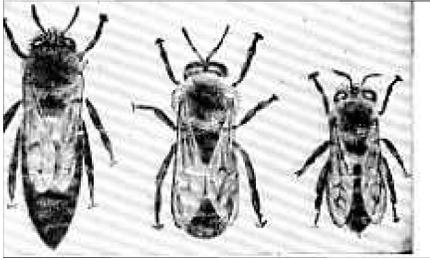
The last "4" refers to soluble potash (not potassium): 4% of the fertilizer is soluble potash available in the first year.

There are a couple of obvious points to be made. First, if you add up

4+5+4 it is only 13, i.e. 13% of the package is fertilizer, the rest is filler. The buyer is not being gypped; the filler is necessary to dilute the quantity. Straight fertilizer would burn and destroy the roots of most plants. If buying compost, the analysis may be lower (1,0.5,0.5); it only means that the NPK content is low; it may be adequate for the plants needs and the compost will benefit the soil in many other ways.

Secondly the fine print on the label is often worth reading. It will note if trace elements are present. It may also give indications (recommendations) of amounts to apply and how to get the best results.





BARAGA Bees

I'm pleased to report that the bees are finishing off the season in good health. After a spate of three or four years of mite infections and foulbrood problems, we finally have four reasonably healthy colonies going into winter. We are now feeding them syrup to store up for their winter rest.

We had two harvests of honey this year and are hoping for much more next year. Now that we have four well-established hives, we should be getting at least 50 pounds of honey per hive, per harvest.

The mysterious CCD (Colony Collapse Disorder) continues and has been reported in BC. In the last issue of Bee Scene magazine (September, 2007), Jean-Marc Le Dorze reported a loss of 30 hives after pollinating blueberries in the Fraser Valley. David Hackenberg, a Pennsylvania beekeeper believes that "something has broken down their immune

system" and that this could be caused by the increased use of the pesticide, *neonicotinoids*. "It's the pesticide of choice in this country – and yours too. You can't get away from the stuff". To add to his argument, Jean-Marc LeDorze of Mission BC says that the pesticide usually sprayed on blueberries (here in BC) contains '*neonics*'. So, here is another argument to keep your gardens pesticide-free!

Thanks go to all of the volunteers on the bee-keeping committee. Special thanks to Dick Goold, who has been lending us his new honey extractor and who has spent many hours ensuring that the bees are healthy and cared for. Finally, thanks must go to the bees for keeping our gardens pollinated and giving us their wonderful honey.

- Ann Talbot



Enjoying BARAGA

Take the time to see, admire and learn from the many different gardeners around. You can be an old man (or old woman) and still learn if you keep your eyes open, if you are willing to try something new and if you learn from your mistakes.

Gardeners have to be among the most optimistic and positive people around, putting so much faith in tiny seeds, enjoying the transplanting of small plants and nurturing them until they are ready to harvest. Gardening, if you take the time to appreciate and enjoy it, is among the most valuable exercises and pastimes. It benefits both body and mind; and it gets you out in the sunshine and fresh air. But even in rainy weather a true gardener rejoices, since this is the best time for transplanting and weeding.

How lucky we are to have that wonderful BARAGA garden and grateful to the City of Burnaby for allowing this great activity there. Properly managed, a 20' by 50' plot can easily feed a family of four most of the year, and if one is fortunate enough to have a small greenhouse as well, extend the harvest season even longer.

For a couple years now I have taken dozens upon dozens of beautiful close-ups of the many flowers we grow, and displayed some at our annual picnics. Whenever I show these to others, they cannot believe that so much beauty can be found amongst our neighbours' plots, in every colour, shape and form. It often pains me to see fellow gardeners rush down to their plots and back; they miss all that beauty around them. This is indeed a most valuable benefit if you take a little extra time to enjoy it. You really don't have to drive to Butchard Garden if you want to see beautiful flowers; many can be seen right here.

I hope our city fathers realise what a wonderful treasure we have at BARAGA and allow us to toil there for many more years. So many communities are desperately trying to create community gardens, we must be grateful to the founders of BARAGA and our present management for carrying on this wonderful tradition. May we be able to garden there for many more years.

- Christian Rumpf

Reflections on Weeds

There is a famous quotation from a romantic poet that weeds are merely plants for which we have not found a use. A better definition of weeds is "plants that invade cultivated areas without invitation and have the ability to multiply rapidly." Here's an example: dandelions can be eaten in salad, or as cooked greens, their roots can be roasted as coffee substitute and their flowers are the basis of a pleasant country wine - hardly useless! Few would argue that plants that grow so readily and in such variable habitats they are other than weeds. Any plant can be a weed if it multiplies rapidly in ground where it was not planted.

Allotments are perfect places for weeds, plants only too willing to take advantage of our well cultivated soils. In my twenty years of gardening at BARAGA I believe the average plot has improved remarkably and I see some gardeners who keep their allotments almost weed free, but I am still fighting the battle. A Master Gardener tells me we now have weeds that were not there ten years ago.

Weeds not only choke out the space and sunlight for desirable plants to grow, they also steal the water and nutrients from the soil. By definition they are super competitors. A weedy crop may yield less than half its potential. Allelopathy is the ability of plants to suppress the growth of competition; for example the weed, lamb's quarters, releases oxalic acid into the soil to stunt

any other plant's growth.

There are some tactics a gardener can adopt to reduce these troublesome interlopers.

1. Lots of weeds are annuals and their seeds need light to germinate. If the gardener applies a mulch they stay in the dark and miss the stimulus to start growing. Before winter cover the soil with a green crop (that can be dug in early spring) or a layer of mulch.

2. Removing weeds before they can get established also removes the chance of flowering and setting seeds. One weed that matures can produce seeds in the hundreds or thousands. Be careful to avoid composting mature plants with potentially viable seed. It often pays to let weeds dry out in the sun before adding them to the compost pile.

3. When removing weeds get all of them or as much as possible; several weeds have tap roots from which they can regenerate, or there may be extensive networks of rhizomes or stolons, each piece of which is capable of swiftly making a new plant. With these types only persistence succeeds.

4. Tight spacing can sometimes serve the double purpose of limiting the space (and light) for weeds to get started and producing an abundant crop. Conversely, sometimes it is expedient to set rows widely apart to allow easy hoeing and ensure plenty of nutrition for your veggies to grow to super-size. Which tactic is adopted depends on the type of crop.

5. When practical, use transplants,

seedlings started at home or from a nursery; this gives a head start to desirable plants over their weedy competition.

It pays to know the enemy; not all of them, of course, that would fill a book; here are just a few examples from a long list of the weeds that trouble us:

Lamb's quarters (*Chenopodium album*) is a weed introduced from Eurasia, now so common in agricultural land it is considered naturalized. One full grown plant is capable of producing 50-70,000 seeds. This is an edible plant (like nettles) in limited quantities.

Horsetail (*Equisitum* spp.), much like the ferns, these plants reproduce by spores (so small they are hard to see) in vast quantities. Once established horsetail spreads by deep underground rhizomes. Its jointed stems break easily and make pulling this weed doubly frustrating.

Buttercups (*Ranunculus* spp.) are another of the introduced weeds. Rather pretty flowers might lull the gardener to overlook this tenacious spreader that will grab any available space and flourish.

Purslane (*Portulaca oleracea*) is a good indicator of rich soil - not that we need this weed to tell us. It is an annual that germinates in warm weather. It is also a succulent with regenerative powers if not completely removed. Purslane is edible, raw or cooked.

Wood Sorrel (*Oxalis stricta*) with cute yellow flowers and delicate leaves, this plant is a tough one to eradicate; it seeds freely, it reproduces itself quickly from roots that easily break at the joint when

dug out.

Quack grass (*Agropyron repens*) can reproduce from seeds, but most commonly from those long roots which snake through the soil and appear as new plants six feet away. The whole root system needs to be removed and baked in the sun before composting; fortunately the allotments' friable soils allow gardeners to do this.

Well that is a few of the obnoxious crew; it is barely a beginning. Last year the Seedling offered a recipe for a home made weed killer; it consisted of salt, vinegar and a little soap. Unfortunately there are two drawbacks; the only part killed by this mixture is the part sprayed and the salt is a harmful residue that lingers long in the soil. The gardener is left with manual elimination, pulling weeds in wet soil, hoeing in dry weather and a routine of about two weeks to keep the plot clean. It may sound onerous, but as an old gardener told me "those weeds sure do make good compost."

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- ◆ Members are invited to contribute their articles, artwork or pictures to future issues.
- ◆ Views expressed in this newsletter are not necessarily those of BARAGA..

