

THE SEEDLING

*The Newsletter of Burnaby and Region Allotment Garden Association
BARAGA, Volume 30, Number 4, December 2011*

2012 BARAGA AGM

Time and Place: The BARAGA Annual General Meeting will be held on January 14th, 2012. 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 2011 Financials and the budget and election of officers for 2012.

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 in 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

IMPORTANT NOTICE: The plot rental fee for 2012 is \$80. The amount shown on the renewal notice is incorrect. The net amount payable, however, is correct. Please pay that amount. If you had six hours of volunteer time but you did not get the \$35 reduction, on the form identify the task (including hours) completed in 2011, approximately when completed and the Director you advised AND reduce the net amount payable to \$55.

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.

Our Thanks

Some members of the present executive are ending their terms of office in January. This includes Don Hatch, the president, who has now completed five years. Also John Florek and Joyce Wishart, the secretary and treasurer respectively, have served for many years.



These executive positions involve a great deal more time and work than the normal six hours of volunteer time expected of the average member. There is, of course, no financial compensation whatever for all this work which often goes unrecognized. We should like to take this

opportunity to express our appreciation for their contribution to BARAGA.

BARAGA Board for 2011

President: Don Hatch 604-433-8055
604-312-3003

Vice-President:

Eleni Harvalias 604-438-6529

Secretary: John Florek 604-526-4710

Treasurer: Joyce Wishart 604-412-3890

Directors at Large

Luigi Aiello 604-721-7705

Terry Copeland 604-434-7167

Dick Goold 604-395-2901

Liliana Hoogland 604-657-4550

Bob Horsfall 604-524-5546

Patricia Spanner 604-315-6066

Comfrey

In the fall newsletter we noted that comfrey (*Symphytum officinale*) is now reckoned a herb to be avoided. This is certainly true for any internal application. Comfrey is known to contain "Pyrrolozidine alkaloids" which are a recognized carcinogen.

However it can still be used externally, in compresses for example. It is sometimes recommended for inflamed joints, sprains, bruises or burns. Comfrey is an excellent ingredient to add to compost piles as it will speed up decomposition significantly.

Healthy Gardeners

Not surprisingly in these days of studies, there are several that deal with the benefits of gardening, in this case how the gardener rather than the garden is improved. There is also a lot of advice to keep the gardener healthy and safe.

Most importantly the studies recognize the availability of food that a vegetable garden brings. But more than just food there are the benefits of fresher, better quality food; it provides cheap organic food, free of pesticides and all the other "cides" used in large scale commercial farming. The threat of sickness from organisms such as salmonella or ecoli is reduced to a very low level. Since there is almost no travel time from garden to table the freshness and quality of home grown always wins out over commercial products. And generally the food costs much less.

An old-time gardener might have said: you get two benefits, first in the growing of it and secondly in the eating of it. Gardening is certainly a great activity physically, getting the gardener out into the fresh air and into contact with nature - sometimes more in contact with nature than we want to be.

Easily overlooked, when thinking of the benefits of gardening, especially on allotments or community gardens, is the improved community cohesion these places bring. Looking at urban agriculture in New York, one study noted that the growth of community gardens has improved the understanding of the interaction between the community and its physical environment.

Along with the physical benefits that come from the physical exercise of gardening and being out in nature and the great outdoors, there are a several things gardeners need to bear in mind to keep themselves healthy and safe. At the risk of sounding a little like a maiden aunt here are some of them:

1. Many gardeners work at desk jobs that have few physical demands. Over-exertion should be avoided. After an inactive winter there is lots to do. The gardener should start work carefully, maybe doing stretches and warming up. It is best to pace yourself and take breaks. Not only muscles strains, back injuries and blisters can be avoided, there is a real concern that the unfit can cause major damage to themselves inducing strokes or heart attacks.
2. The sun is great friend to the garden, but it can be a problem too. It helps to wear proper clothing, long shirt sleeves, wide-brimmed hats, etc. Use a reputable sun screen. Beware of sunburn, sunstroke, or skin cancer in the long term. Take water or a drink with you to the garden and avoid dehydration.
3. When working try to avoid unusual movements, twisting and reaching, lifting heavy weights. Look for comfortable postures to work in when possible. Use the right tool for the job. If moving a heavy object or earth any distance, use a wheelbarrow. Often a long handled tool is better than a short one; it allows more leverage and is less likely to involve back strain. Use knee pads or a padded knee stool.
4. When laying out the garden give some thought to convenience of the humans working there - yourself primarily. Better design can reduce maintenance, eliminate lifting and simplify chores.
5. There are some specific hazards to avoid. Since Burnaby regulations eliminate many

toxic chemicals, gardeners will not be using them. Vermiculite should be used with care; when potting up wet the material down so dust cannot be breathed in.

6. Sandals are lightweight and comfortable summer foot wear but can be hazardous in the garden, especially when digging.

7. Keep tools and other objects out of the way. On pathways, hoses, lumber, and any kind of uneven surface can cause tripping. If a sharp tool or a pointed one, like a rake, is left lying around, someone is bound to injure themselves, likely you yourself.

8. Keep your tetanus shots up to date. Do not work with soil if you have open sores or cuts, tetanus is a very serious infection.

9. If you have a mobile phone take it with you to the garden. It could be useful.

Right! All of that does sound like a nervous maiden aunt, but we, over-confident folk, are sometimes our own worst enemies.

A Tomato Issue



History

Although they are the Western world's favourite vegetable, tomatoes are latecomers. The first cultivated plants were probably in the Andes, but the Spanish found them

growing in Mexico and introduced them to southern Europe. A subspecies much like cherry tomatoes grows wild in central America; our varieties likely all sprang from these. The first tomatoes in Europe were large, irregularly lobed, yellow ones.

The Varieties of Tomatoes

The beginning of winter may strike readers as an odd time to bring up the subject of tomatoes. Actually this is when seed catalogues are being printed, all the varieties of available seed are being packaged and in two months they will be sold by mail order or displayed for sale in local nurseries. Now is the time to consider what varieties of tomatoes to grow.

There are many factors to consider when selecting which variety to grow. Here are a few of them:

Determinate or indeterminate. Wild tomatoes are short lived perennials, but have been selected for many uses. Determinate varieties are ones that stop growing after a certain number of nodes are produced. These make good field tomatoes where all the crop is needed to ripen at the same time. They are also good for pot culture (hanging baskets) so there is a good fruit set, a quick harvest and no straggly growth. Indeterminate varieties continue growth as long as the weather suits. Gardeners will usually choose a gradual harvest over as long a period of time as possible; indeterminate is for them.

Colour of the tomato. Tomatoes can come in several colours and still taste like tomatoes, so colour is an option. There are dark purple brown varieties like Black Russian, yellow and orange ones, green tomatoes, white (almost) and pink. The most common and popular, however, is undoubtedly the red slightly orange ones normally associated with tomatoes.

Size and Shape. There is a huge spread in size. Some tomatoes reach half kilo size (a pound); others such as Sweet 100 take forty or more fruit to make the same weight. Most convenient for handling and slicing are the hand sized ones in between. While tomatoes

are usually thought of as ball-shaped, several varieties are plum shaped with elongated end points. Plum tomatoes have much more pulp and less juice and seeds so are good for making sauce. Some of the older varieties are notably lobed. Some new varieties are developed with box shapes, good for packing and good for canning.

Old varieties and New varieties. The old varieties were developed to provide a sizable harvest and give good flavour in the kitchen. New varieties are often more productive, but less tasty; they were aimed at commercial uses, modern transportation, etc. Some new varieties were bred for disease resistance. An important improvement in some newer varieties is a change in the flower which promotes self-pollination; old varieties must rely on insects. Sometimes an important advantage of new over old is the length of time it takes to produce a crop; this can vary from 55 to 90 days.

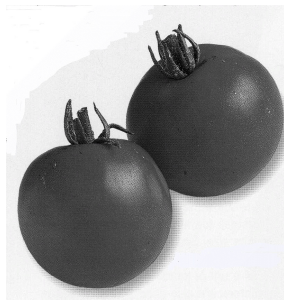
An annotated list of all the varieties available would overflow this newsletter, so here are a few varieties described in detail. Its sole purpose is to indicate the scope of varieties available to the gardener. He/she will choose what they wish to grow.



Large heirloom Brandywine

Brandywine: is a large tomato that ripens from the inside, its outside colour may still be greenish while the pink interior is fully ripe. It is a heirloom variety that is not impressively

productive. However it is hard to find a better tasting tomato. There is also a yellow Brandywine - another heirloom.



Popular tomato - Moneymaker

Moneymaker: a medium sized, main season tomato, that has been around for at least 150 years. It is vigorous and productive, of very good flavour, and not subject to blossom end rot.

Since it is not a

hybrid seeds can be saved.

Super Fantastic: if what you really want is a big crop or big tomatoes with big flavour, this may be the one for you. It ripens early, but really loves heat, so a greenhouse situation is best.

Principe

Borghese: this is an example of an all-round fruit. It grows in large clusters of plum-shaped tomatoes. It is tasty enough to double as a cherry tomato, but is best sun dried.



Tasty cluster of Principe Borghese

Sweet 100: is an old variety of cherry tomato. It was known for production of a multitude of small, cherry-sized tomatoes on a vigorous plant. It is largely replaced in the trade by Sweet Million which is even more productive of sweet, tasty fruit.

Tumbler: if you want to grow tomatoes in a small space or pot (hanging basket) this makes a good choice. Grows large cherry tomatoes in 55 days. It is a hybrid and a determinate plant.

Beefsteak: there are several varieties that fit this mold. They are large, meaty tomatoes that produce well and taste good (sweet and

balanced acid). Big Beef is a typical one, a hybrid that takes nearly 90 days to production.

Early and Late Season: there are several varieties grown because they can take the cold days of spring and produce early. There are also some tomatoes that ripen very slowly (long-keepers); these can be picked and stored over winter, lengthening the tomato season often into spring; unfortunately their flavour is not retained, although they still beat the methane ripened imports.

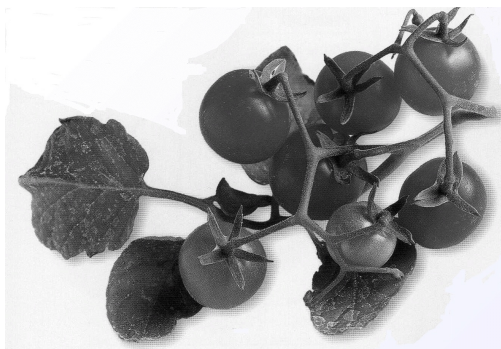
Some Tomato Growing Tips

Tomatoes like hot, sunny days. They prefer a rich, loamy, well-drained soil, slightly alkaline.

Standard practise is to plant seed in late March/early April, grow the seedlings in a warm, well lit spot and plant out at the end of May. Transplanting is best done when the soil is at a steady ten degrees Celsius or higher. Tomatoes need good space; their stringy roots spread over a metre. While tomatoes can be grown in the open, some kind of protection is preferred. An ideal situation is under a plastic shield that will keep the plants dry, raise the temperature of the air, but still allow good air circulation.

Many gardeners grow their plants as a single cordon with some kind of support, but allowing two or three stems will also work fine. If grown as a bush the tomato fruit must be protected from the ground in a wire frame or with a dry mulch. Suckers removed in early training can be planted and will readily root. They may even catch up to their parent plant

in production. Suckers are best removed and excess growth too; this ensures the plant's energy is channelled to fruit production. Sometimes the lower leaves are removed; presumably this is to increase air circulation. You might spot an experienced gardener giving his/her tomato plants a gentle shake early in the morning. This is not to wake the plants up, but to enhance pollination and increase the amount of fruit set.



Tomatoes do not need much water, but the best fruit is produced where the water supply is constant. Basil and marigolds are recommended as ideal growing companion plants.

Tomato Troubles

Many problems are caused by poor nutrition, low temperatures, and water stress. The fertility of the soil can be improved in many ways; most gardeners have their methods to produce good soil. Watering fairly frequently, but not too much - tomatoes do not need that much water - ensures an even supply of moisture is available. Except for providing the shelter of a temporary greenhouse there is nothing to be done to provide the hot sunny days tomatoes flourish in.

Greenback: this is a hard green ring around the stem that never ripens; it is associated with a shortage of potash.

Blossom End Rot: the apex of the tomato darkens and rots. This is caused by a shortage of water or alternately by too much water; the plant's roots rot away unseen by the gardener.

Fruit Split: this is another problem due to irregular watering. It is worst if a long dry spell

is followed by a heavy rainfall. If the tomatoes are grown in a greenhouse this situation can be somewhat improved.

Late Blight: this is a devastating fungal disease (*Phytophthora infestans*); it was discussed in detail in *The Seedling*, July '07. Keeping the tomato foliage dry, usually by a cover of plastic, and good air circulation will help, but the most reliable remedy is copper spray which must be applied before the fungus spores are let loose in cool, damp weather.

Tissue Culture

Do you wonder about the origin of the plants that you buy? Where they came from? What means were used to produce them? Who was actually responsible for growing the plant? While most of the plants grown on an allotment will originate as seeds that you yourself planted, when you buy perennial plants or starter seedlings from a nursery, someone else will have grown them.

Just like many things in we buy these days plants at the nursery are produced in factory settings. Many items are grown for a mass market and standard means of production are used. Although few plants are so labelled many are products of tissue culture and grown by the thousand.

Gardeners tend to think of such things as division, takings cuttings, layering as the means to propagate and increase their stock of desirable plants, but these means are often too slow and labour intensive for large scale growers who have turned increasingly to mass production. Seeds, of course, introduce genetic variability and so the seedlings do not necessarily come true; only in vegetative reproduction are the identical genes replicated.

To fetch the same price as and be identical to a named variety there must be asexual reproduction. Although painstaking, the favoured method of cloning valuable plants is tissue culture.

Tissue culture is merely taking any part of a plant whether it be roots, stem, bud, leaves, part of the flower, etc. and growing this part into the full plant, sometimes from just a few cells. Plants are unlike animals, especially higher animals, in that a whole plant can be grown from just a portion of the tissue - given the right conditions. In tissue culture any suitable part of a parent plant is grown in a sterile medium that provides all the nutrients required.

A typical plant culture operation be it large or small will have the following three components:

1. A Preparation Area. In this area all the equipment used in the operation is sterilized; the growing medium is prepared; everything from chemical compounds to distilled water is stored. The central piece of equipment is an autoclave, a super deluxe, pressure cooker, used to sterilize almost everything except the plant material.

2. The Transfer Room. Here the chosen plant tissue referred to as explants, already cleaned as thoroughly as possible, is introduced to the growing medium in test tubes, flasks, or other suitable glass containers. A large fan known as a laminar flow filter ensures only clean air is present. All equipment in this area is sterile and hygiene is of utmost importance.

3. A Growing Room. Here is where the explants are kept until they grow to suitable size. Although temperature and cleanliness are maintained, lighting is less critical since the explants do not rely on photosynthesis but on the nutrients provided in the agar medium.

When grown explants can be further divided (indefinitely) to increase the stock of plants or sent out of the laboratory.

Explants usually do not have any roots, so the first task outside the lab is to stimulate root growth. At this stage the explant is treated much like a cutting. In what must be repetitive and factory-like conditions the small plantlets by their thousands, even millions, are grown into marketable products.

This kind of culture ensures that all the plants produced by it are genetically identical to the parent plant and can be sold as named varieties. Occasionally, it appears, named varieties derived from sports do not resemble the parent plants. Tissue culture can be used to

defeat some pests. In particular raspberries, strawberries, potatoes, and other garden plants can be freed from virus infections by tissue culture. The tissue used in the culture is selected from uninfected cells. Raspberries or potatoes can be bought at a nursery and used to replace infected stock although they should be grown in soil well removed from diseased plants.

Patient and enthusiastic gardeners with some spare time, available space in their houses and a little unneeded cash might want to consider tissue culture as a year round hobby. As described above tissue culture is possible for an amateur and some of the exacting materials and methods can be simplified enough to be practical in a one man/woman operation.

Urgent Notice

BARAGA requires members to step forward and take on positions at the board of directors. It is necessary that we have a good working board of directors that can responsibly run the affairs of our gardening organization.

The position of president is open due to the five year tenure clause in the constitution. The position of vice-president is open due to a probable change of work requirement of the former v.p. and the position of secretary is open due to the long tenure of the current holder. We do have a member that will run as treasurer.

Other than those executive positions we have possibly four or five of the current directors who will stay on as board members. The board suggests that the current number of directors other than executives be increased from seven to possibly 10 to 12 members to enable a lighter workload of all directors.

Anyone who wishes to run for office, please contact Camilla Dietrich the elections coordinator prior to January 3, 2012.

- Don Hatch

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

◆◆ To get Approval for the construction of greenhouses and sheds (or when making repairs) phone Don Hatch 604-433-8055 or Derrill Thompson 604-436-0324.

◆◆ 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

This newsletter was edited by David Tamblin (unsigned articles are written by him). Views expressed in this newsletter are not necessarily those of BARAGA.