

Garden Guide



**A Product of the
Community Gardening Network
of Ottawa**

www.justfood.ca



CGN-RJC

of/d'Ottawa

Community Gardening Network/
Réseau de jardinages communautaires

What is the CGN?

The CGN is a network open to all members of the community who garden, whether in a community garden, or in their front or back yard, on their balcony, at public buildings, in a schoolyard, etc. working to **sow, cultivate and harvest the sustainable** development of community gardening in the City of Ottawa.

What is the mission of CGN?

To work towards ensuring that all neighbourhoods in the City of Ottawa have **information on** and **access** to community gardens and **gardening**, with particular attention to, but not exclusively high density, low income areas.

In doing so, the CGN is committed to democratic processes, **ecological stewardship** and working with diverse populations.

The Community Garden Development Fund

The Community Garden Development Fund was established in 2009. It is a collaboration between Just Food, the City of Ottawa and members of the Community Gardening Network. The annual fund of \$88,000 is to be used to start new community gardens in the City of Ottawa, and to expand and enhance the existing gardens around the City.

For more information about this fund visit www.justfood.ca

A Community Garden is...

...a collection of garden plots in an urban, suburban or rural setting, which provides residents with access to land for gardening. Community gardens beautify previously barren or unused land. Run by members of the community, they are a place where neighbours can meet and work together to care for the garden while growing fruits, vegetables, flowers, and herbs.

What are the benefits of community gardens?

FOOD SECURITY and NUTRITION

Gardening provides people with fresh, nutritious fruits, herbs and vegetables mainly during the harvest season. Community gardens can play an important role in helping people to eat well when they are unable to afford healthy food in stores. Gardens provide those on low incomes with the opportunity to grow organic food, which is often expensive in retail stores.

ACCESS TO GARDENING SPACE

Community gardens attract people who don't have access to yard space, especially those who live in apartment buildings. Community gardens are accessible spaces within walking distance where people can participate in recreational gardening and growing healthy food for themselves.

ENVIRONMENTAL SUSTAINABILITY

A community garden allows individuals concerned about the environmental impacts of food to have control over the food they eat. People use organic methods in their gardens, thus reducing pesticide exposure to themselves and the environment.

Growing food in the city reduces the environmental costs associated with transporting food over long distances. Gardening connects people to the food cycle. It also encourages the recycling of food and garden waste through the use of compost, which reduces the amount of trash in landfills.

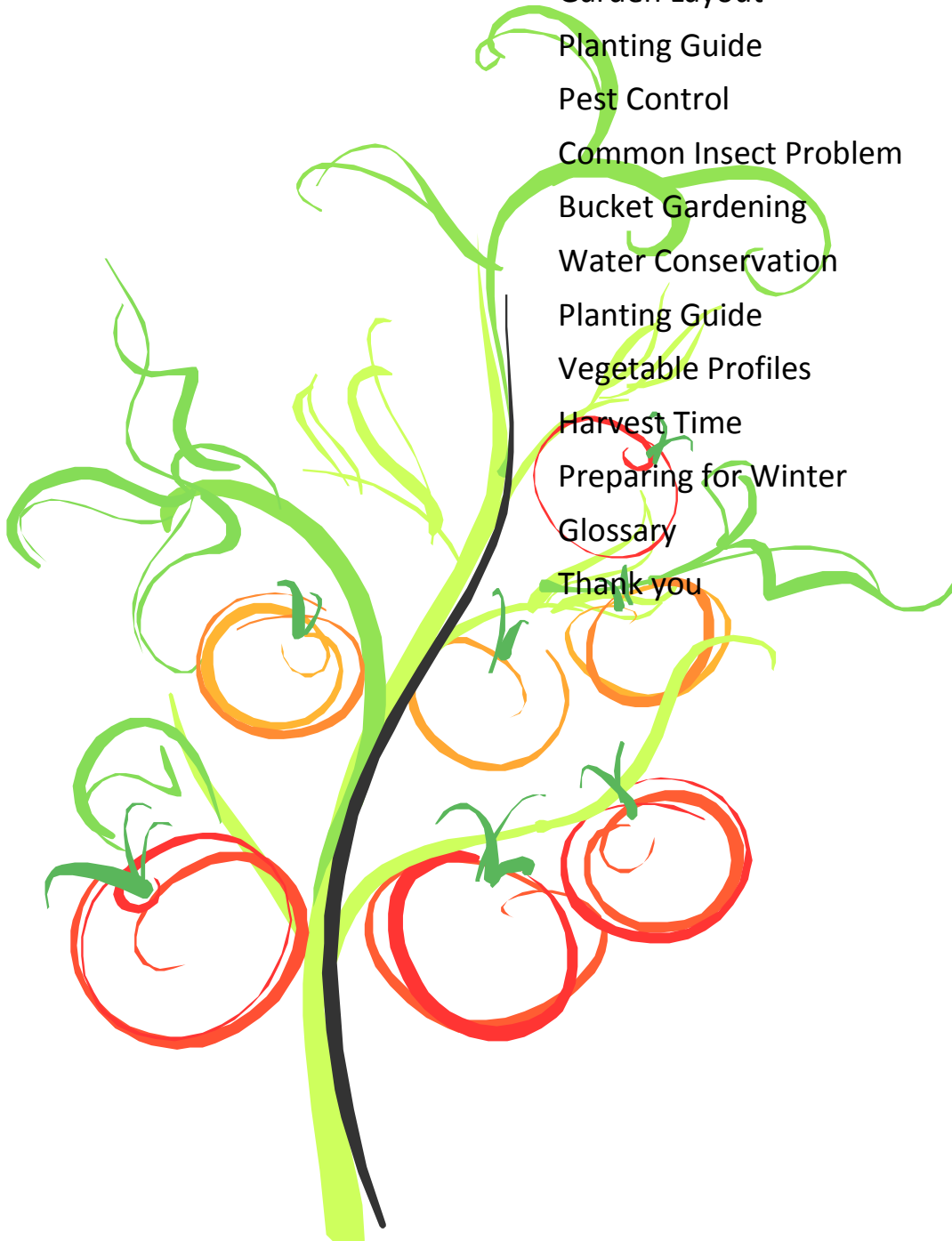
COMMUNITY DEVELOPMENT and EDUCATION

Community gardens help to create a positive image of the community. Community gardens have a positive impact on the community. The garden becomes a meeting spot, where community members interact and get to know one another. This helps create a closer-knit, more cooperative neighbourhood. Community gardens allow for cooperation across diverse ethnic and age groups.

In Ottawa, gardeners and community members can also participate in free educational workshops throughout the year which focus on organic gardening skills, food and environmental issues, and the preparation of nutritious meals.

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BUILDING THE SOIL

When you first start your garden, you might find that the soil is too hard, too rocky, too sandy, or not healthy enough to grow plants well. Most gardens need a lot of work to make and keep the soil healthy, productive and easy to work.

- Early in the spring, when the ground is warm and dry enough, dig your garden to a depth of **8 - 10 inches**, breaking up clumps and removing large rocks.
- Add **3-4 inches** of **compost** and turn it thoroughly into the soil. Compost is good for all kinds of soil, it gives **structure** to sandy soil and helps it hold water. For soil that is hard and full of clay, it helps to loosen it and helps water drain through it. It also adds **nutrients** which are slowly released into the soil during the growing season.
- Another way to help improve the soil is to plant a cover crop, or green manure in your garden in the early fall (mid September). These plants are not harvested in the spring, but are turned back into the soil. These plants bring nutrients up from deep in the soil and also “fix” nutrients, like **nitrogen**, from the air and water. When you turn them under, you also increase the plant matter in the soil, which helps to give structure to clay or sandy soil.

Some good **cover crops** are **alfalfa, clover, rye, barley** and **winter wheat**; they need to be kept moist for germination. Don't let the plants go to seed. Turn them under in the spring when they are **4 or 5 inches** tall. You can also plant cover crops in the spring or summer in part of your garden that you are not using to prepare it for next season.

COMPOSTING!

*A great way to **feed your soil** and help your garden grow!*



What is COMPOST?

Compost is the breakdown or decomposition of food and garden waste. It could be a mix of:

- Leaves
- Fruit and vegetable scraps
- Weeds
- Other plant waste

Tiny creatures such as bacteria, fungi, worms and small insects eat these materials and turn them into compost - this is called decomposition. When compost is ready to put on your garden it will be dark brown and crumbly and it will look like soil.

Why should I put compost on the garden?

Compost is **VERY GOOD** for your garden. A **2 - 3 inch layer** over your whole garden is very helpful. It will help your plants grow and keeps the soil moist. It also keeps weeds down longer. Helpful soil bugs like compost too. Compost is one of the best fertilizers you can feed your garden.

How do I make compost?

Compost is easy to make. You need to save fruit and vegetable scraps from your kitchen. Store them in a closed container until you can bring them to the garden. Dump your scraps in the composter regularly, and be sure to wash out your bucket to prevent it from smelling bad. You should also add leaves and weeds that have not gone to seed from your garden.

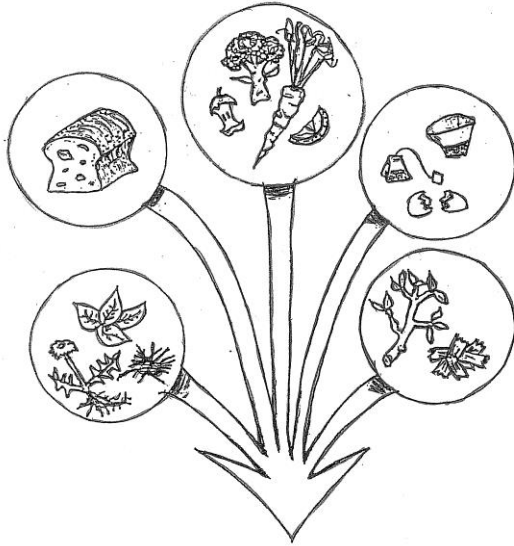
The three most important things to do when building a compost pile are:

- 1) Break all waste into **SMALL PIECES** to speed up decomposition.
- 2) Have a balance of **WET WASTE** – egg shells, vegetable and fruit scraps, fresh grass and weed clippings and **DRY WASTE** -- dry grass, dry leaves, corn cobs. It is best to have a mixture of **about 1 part wet and 2 parts dry**; if it is too dry, you can also water your pile.
- 3) Make sure your pile is not too wet and turn it regularly so that **AIR** gets to all parts of the pile. If you do not have time to turn the pile, it can sit without being turned. Not mixing the pile results in slower decomposition. The pile may smell bad if there is not enough air in it.



What can I put in the compost?

DO ADD



- Bread, baked goods, plain noodles
- Egg shells
- Fruit and vegetable scraps
- Tea bags and coffee grinds
- Weeds and leaves
- Grass and Branches

DON'T ADD



- Butter, cheese, milk
- Meat, bones
- Oil, peanut butter, lard
- Mayonnaise, salad dressing
- Sour cream, yogurt
- Dog and cat waste

How do I use compost, and when do I put it on my garden?

Compost can be dug into the soil in the fall or in the spring before planting the garden, or used as a mulch.



When planting in the spring, put compost in with the seeds.

Once your plants are growing, spread some compost around the flower and vegetable plants.

SEEDS

You might want to find some of your plants that are healthy, strong and quick growing, and let them flower and go to seed. You can then collect and dry the seeds and save them to plant next year.



- This might mean letting your radishes, broccoli or spinach go to flower instead of harvesting them.
- Or you might let some beans and peas stay on the vine until the plant dies and the pods are large.
- You can also let other vegetables, like squash, cucumber or peppers stay on the plant until they are big and tough and not very good to eat. This is usually when the seeds are ready to be saved.

Some plants will only produce seeds the second year of planting, so you would have to leave them in the garden over the winter and wait until next season to get seeds. (They would have to be heavily mulched in the Ottawa area to prevent winter killing)

- Beets, cabbage, carrots, celery and onions all produce seeds in their second year of growth.

Seeds should be taken out of their fruit or pods, washed, spread on a baking sheet and left on a sunny window sill indoors to dry. When they are dry, you can put them in a jar or small bag, label the container, and keep them in a cool, dark, dry place until you need to use them. (a fridge or a freezer is best)

Not all of the seeds you save will grow plants next year. Some seeds you buy in the store grow only hybrids, which mean that their plants will not produce good seeds. Sometimes when insects pollinate your flowers, they mix the pollen up with other plants, and the seed will not grow well.

WHAT IS COMPANION PLANTING?

- Companion planting is a way of growing plants in your garden that helps your plants stay healthy and keeps insects away. It is something that you may choose to practice, some people have found it helpful.
- Some plants grow better when they are next to other ones- like carrots and tomatoes.
- Some plants give off a smell from their flowers and leaves, or a chemical from their roots that insects don't like, so they stay away.
- Some plants are very good for the soil- like peas and beans. They add nutrients when they grow that help other plants to stay healthy and strong.

COMPANION PLANTS FOR PEST CONTROL

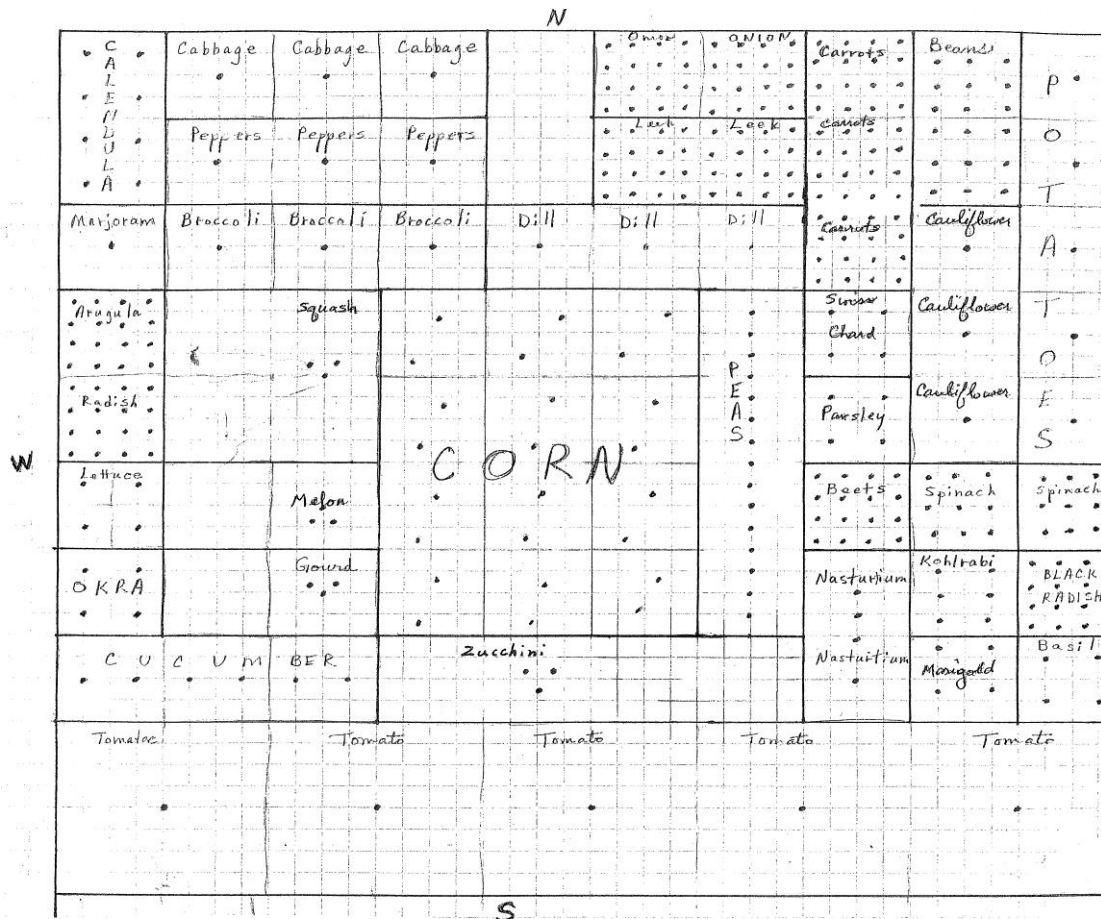
PLANT	KEEPS AWAY	PLANT NEAR
Basil	flies, mosquitoes	tomatoes, all plants
Garlic	aphids, onion flies, spider mites, weevils	tomatoes, cabbage
Horseradish	potato bugs	potatoes, eggplant
Marigold	nematodes, Mexican bean beetle & many others	potatoes, tomatoes, strawberries, beans, all plants benefit
Mint	cabbage moth, flea beetle	tomatoes, cabbage
Nasturtium	white flies, aphids, squash bugs	beans, broccoli, cabbage, potatoes, squash, radishes, tomatoes
Hot Pepper	aphids, caterpillars, rodents	as a powder or spray on the leaves or on the ground – all plants
Rosemary	cabbage moth, bean beetles, carrot fly	cabbage, broccoli, carrots, beans, squash, tomatoes
Sage	cabbage moth, carrot fly	cabbage, broccoli, carrots
Tansy	flying insects, cucumber beetles, ants, squash bugs	fruits trees, berries, fruiting plants, squash, tomato, cucumber
Thyme	cabbage worm	cabbage, broccoli
Wormwood	Moths, cabbage worm, flea beetle, animals	plant outside the garden as a border

A SAMPLE GARDEN LAYOUT

Here is an example of how you might plant a garden: when you plant your garden again next year, you can rotate the sections, so that the same plants are still growing together, but in a different part of the garden. This is called **crop rotation**. This helps to confuse the pests that like to eat certain plants. It also helps to keep the soil healthy, because some plants take a lot of nutrients out of the soil, while some plants add nutrients to the soil. By moving the plants, it stops one part of the garden from being starved of nutrients.

This is just an example. When you start your garden, you might find that some plants grow better in a certain spot in your garden. You might also find that some plants won't grow well in your garden no matter how hard you try. Every garden is different. Experience is the best guide of all!

Follow the directions on the seed packet for proper spacing; not all plants need the same amount of space.



Vegetable Planting Guide for the Ottawa Area

- 1st Week of March**
- Start onions from seeds indoors
 - Place sweet potatoes in water to sprout indoors
- 1st Week of April**
- Start tomatoes, peppers and eggplant indoors
 - Start early brassicas and romaine lettuce indoors if you have a cold frame
- Middle of April**
- (or whenever soil can be worked) plant peas, radish, lettuce & a few onion sets for greens outdoors
- 3rd Week of April**
- Transplant brassicas and romaine lettuce to cold frame
- 1st Week of May**
- Start watermelon and cantaloupe indoors
 - Start one container of slicing cucumbers indoors
 - Plant beets and carrots for early harvest, spinach, Swiss chard and storage onions outdoors
- Middle of May**
- Start early corn outdoors (if soil reasonably warm)
 - Plant early potatoes
- Last week of May**
- Cut sweet potato vines into 7-8" pieces and place in 2-3" of water to root
 - Start mid-season corn, green beans, cucumbers and squash outdoors
 - Transplant tomatoes and peppers outdoors
- 1st Week of June**
- Plant lima beans and okra outdoors
 - Transplant sweet potatoes, watermelons, cantaloupes and slicing cucumber outdoors

2nd Week of June

- Plant late corn outdoors
- Plant winter storage carrots, beets, rutabagas and potatoes outdoors at end of week
- Start late season brassicas (cabbage, cauliflower and broccoli) outdoors for later transplanting

1st Week of July

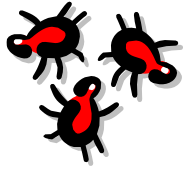
- Plant Chinese vegetables/cabbage outdoors
- Transplant late season brassicas

Late August

- Start fall garden of radish, lettuce and onion sets

1st Week of Sept

- Start spinach and onion sets for spring harvest

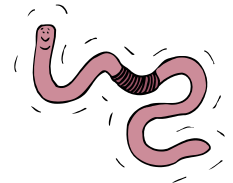


PEST CONTROL TIPS



- Compost:** Add compost when you plant your seeds or small plants. It will keep your plants strong, healthy and able to better resist insects and disease.
- Clean up:** Take rotting wood and plants away in the fall to stop bugs from laying eggs, and/or over wintering in this material.
- Move plants:** Don't plant the same vegetable, or family of vegetables, in the same place next year, as some pests stay in the same spot in your garden year after year.
- Good Plants:** Bugs will stay away from some plants because they don't like the smell. Plant them between your vegetables or around the garden. Check the list of Companion Plants for Pest Control, to find out which plants would be best for your garden.

HELPFUL CREATURES:



Lady bugs are great for your garden! They love to eat aphids.

Earthworms: worms create air spaces and make the soil better and better as they eat their way through it.

Having lots of **flowering plants** will bring more good bugs to your garden. Dill and yarrow are great!

RECIPES FOR HOMEMADE PEST SPRAYS:

You can make safe, natural sprays at home that will discourage or kill some of your pests. Test the sprays you make on a few plant leaves first, wait a couple of days, and if there is no damage to the leaves, it should be OK to use it.

- Soap spray:** Soapy water can be used to spray on plants to kill some pests. It can also keep eggs from hatching. Just mix a little dishwashing soap with water. Make sure to spray both the tops and bottoms of the leaves.
- Garlic Spray:** Puree 15 cloves of garlic with 2 cups of water in a blender. Or, mash the garlic or cut it up finely. Let it sit for one day. Then strain the liquid, so there are no garlic pieces left. The garlic repels some bad bugs, and can kill young ones.
- Hot Pepper Spray:** Add 1/2 cup of finely chopped hot peppers to 2 cups of water. Or, put in a blender. Strain the mixture. Wear gloves. If the spray gets on your skin or in your eyes it will burn or sting. Large pests like ground hogs, raccoons and mice, don't like hot peppers. If this is sprayed around the garden, it will help to keep them away.
- Hair:** Scattering human hair clippings or dog hair around a garden area may help keep ground hogs away.
- Twigs and Branches:** Scatter twigs and branches over your planted rows to keep cats away. Make sure not to scatter too many twigs and branches before your plants germinate as the seeds that you have planted need sunlight to grow.

Vegetable Garden Pest Management

The vast majority of insects in a vegetable garden do no harm; many are beneficial, while only a few are actually harmful. Moreover, the impact of these harmful ones can be minimized easily by practising a little prevention, tolerance and control.

Healthy Plants

The best defence against insect pests is a good offence. Start by ensuring that your plants are healthy and growing vigorously. A healthy, vigorous plant can better tolerate or rebound from many types of insect damage. Locate your garden in a sunny location, provide a loose, well-drained soil, and add plenty of compost. If soil drainage is a problem, use raised beds. While the pH of a rich, organic soil is usually satisfactory, some acidic sandy soils may need some supplemental lime. As Thomas Jefferson, the 2nd President of the USA, once wrote:

“I suspect that the insects which have harassed you have been encouraged by the feebleness of your plants; and that has been produced by the lean state of your soil.”

Crop Rotation

If you rotate your vegetables or families of related vegetables each year, you may break the reproductive cycle of some insects, particularly those relatively immobile species that overwinter in the ground or in specific host plants. Crop rotation is especially effective at discouraging several soil-borne diseases, including bean root rot, club root, bacterial diseases of tomatoes and various potato afflictions, all of which can weaken your plants and make them more susceptible to insect attack. In general, rotate the following plant families together: brassicas (cabbage, cauliflower, broccoli, Brussels sprouts, turnips, radish); solanaceous plants (tomato, pepper, eggplant, potato); roots (carrots, beets, parsnips); greens (lettuce, endive, spinach); legumes (beans, peas); and cucurbits (cucumbers, melons, squashes). Garden sanitation is important, so remove vegetable waste from the garden and compost it to reduce the overwintering success of some insects.

Bio-diversity and Interplanting

Increase bio-diversity by planting only small quantities of the same vegetable in any one place (usually this is the norm in a home vegetable garden). Try not to interplant cultivars from the same family grouping (as noted above). For example, it is much better to mix cabbages and carrots than cabbages and cauliflower. A diversified mixture of plants, with differing colours, shapes and odours can sometimes help reduce insect attack. Books and guides dealing with companion planting recommend specific combination of plants that are said to repel certain insects. For example, some claim that nasturtiums repel striped cucumber beetles, marigolds discourage the imported cabbageworm butterfly, and catnip foils flea beetles.

Predator Insects

Encourage predatory and parasitic insects. Members of the umbelliferae family, such as dill, are especially good at attracting parasitic wasps, which have three main groupings – chalcids, braconids and ichneumonids. They come in many shapes and sizes, from pinhead small chalcids to ichneumonids a few centimetres in length. They appear to have a stinger in the rear, but it is only an ovipositor. All lay eggs in other insects or their larvae, including tomato hornworms and aphids.

Tachinid flies are rarely noticed in the gardens as these bristly brown or gray insects resemble the somewhat larger housefly. They are most active on warm, sunny days and are parasites of corn borers, tent caterpillars, cutworms and other larvae.

Yellow jackets and hornets are not welcomed by most gardeners, but they do collect caterpillars, insects and larvae for themselves and their young – in addition to animal matter, pollen and honey.

Ground beetles are black or dark brown, but can appear bright metallic green or blue in sunlight. They usually hide under rocks, barks or other debris during the day and feed at night, eating all kinds of insects, larvae, cutworms, and snails and slug eggs, to mention only a few of their favourites.

Rove beetles are sometimes confused with earwigs, although they lack pincers. Black or dark brown in colour, they are mainly scavengers, often found in decaying matter. However, they do parasitize cabbage root maggots and other small larvae during their reproductive cycle.

Assassin bugs are black or dark brown, as well, about one-half inch long, and somewhat like a miniature praying mantis in appearance. They usually feed on the juices of other insects and larvae, including Japanese beetles and leafhoppers.

Damsel bugs should not be confused with damselflies, which look like small dragonflies. Small-flattened bugs, they prey on aphids, leafhoppers and caterpillars.

Spiders should not be forgotten as they have a voracious appetite for many kinds of insects. The Chinese still construct and use spider houses in their plots and fields. Made of bamboo, these small pyramid-shaped containers provide a perfect living place for many kinds of spiders. When an outbreak of harmful pests occurs, the small houses are picked up by a handle, and moved to the area of need.

Lady beetles must not be overlooked, as they are the best-known insect predator of all. While there are reportedly 3,000 species of lady beetles, the convergent species is the most common. It has a black head, thorax and undercarriage, with a red-orange back showing a few black spots. Both the adults and the immatures, which look a little like tiny alligators, eat soft-bodied pests such as mealy bugs, scale and aphids.

Other predatory insects exist in our gardens, as well, with intriguing names like syrphid fly, lacewing, soldier bug, tiger beetle, pirate bug, hover fly, big-eyed bug and robber fly. Become familiar with all of these insects that eat eggs, larvae and even other adults. Moreover, never

kill an insect unless you know it is or could become a pest as you might mistakenly kill a beneficial.

Birds, Toads and Frogs





While many birds resort to eating seeds and dried berries in the winter and early spring, they soon return to a high protein diet of insects and larvae when these food sources reappear. And they rarely eat vegetables in our gardens, although some do like a few cherries or berries (netting can protect vulnerable crops). Attract nature's insect eaters with water in the form of an attractive birdbath, and provide housing for your favourite species. In spring and summer, insects form 90% of the diet of chickadees: moths, caterpillars, flies, beetles, true bugs, plant lice, scale, leafhoppers, and more... Wrens can be attracted by nesting boxes, and because they often raise more than one brood each year, they must collect large quantities of insects. They will even forage in the evening, and are reputed to catch earwigs, which become active at this time of the day. Swallows and purple martins are legendary insect eaters, making flying pests 99% of their diet (build a martin or swallow house to attract these gardening allies). Even starlings can be appreciated as they are reputed to be one of the few birds that will eat tent caterpillars.




Toads can consume large quantities of insects in the garden. Provide some water, a few cool hiding places, and be careful when tilling and digging – toads often burrow into the soil during the daytime. If your garden is near a pond or you have installed one in your garden, you will benefit from the insect appetite of frogs as well.

Other Controls

When the direct control of a specific pest is needed, handpick (potato beetles), utilize pheromones (Japanese beetles), set out traps (crumpled newspaper for earwigs), use barriers (floating row covers such as Reemay fabric for onion maggots), apply natural repellent solutions (garlic and water) or use Bt sparingly in certain cases (for cabbageworms). Never use broad-spectrum insecticides, even if from a natural source (e.g. rotenone), as such substances kill beneficial insects as well as the pests. Time your plantings to miss the first and usually most destructive generation of a pest if it is particularly bothersome in your area. Keep a vigilant eye out for insect plant leaves for signs of damage or disease. Always remove wilted plants and look for insects or larvae among their roots. And finally, practice tolerance. Vegetables and fruit from a home garden need not look perfect – discard some produce, cut away insect damage, and enjoy the flavour and nutrition of produce grown naturally in your own garden.

COMMON INSECT PROBLEMS

NAME	INDICATION	CONTROL
<p>Aphids</p>  <p>(colour: varies but larvae are usually red or green)</p>	<ul style="list-style-type: none"> • presence of ants • foliage curls • foliage turns yellow • aphids visible on underside of leaves and young stems 	<ul style="list-style-type: none"> • gently rub the back of leaves to squish aphids • spray leaves and stem with a soapy water solution. Rinse.
<p>Cabbageworms</p>  <p>(colour: green)</p>	<ul style="list-style-type: none"> • holes in leaves • presence of black/dark green droppings on leaves 	<ul style="list-style-type: none"> • handpick worms
<p>Slugs</p>  <p>(colour: brownish-red or grey, depending on type of slug)</p>	<ul style="list-style-type: none"> • ragged holes in leaves • slimy trail • active 2 hours after sunset and 2 hours before sun rise 	<ul style="list-style-type: none"> • handpick after sunset with a flashlight • create a barrier around plants with crushed eggshells or wood ashes • place shallow dishes of beer or yeast/water mixture
<p>Wireworms/Click beetles</p>  <p>(colour: worms are reddish brown)</p>	<ul style="list-style-type: none"> • since worms eat the roots of plants, plants will wilt and then soon die 	<ul style="list-style-type: none"> • trap with potato peelings scattered around garden. • check every morning, then collect and destroy

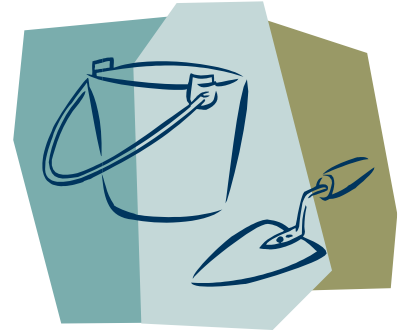
<p>Colorado Potato Beetle</p>  <p>(colour: orange and black striped; eggs, found on the underside of leaves, are bright orange)</p>	<ul style="list-style-type: none"> • chew foliage of peppers, tomatoes, potatoes and eggplant • leave “skeletons” of leaves 	<ul style="list-style-type: none"> • handpick beetles and orange larvae • dust plants with cornmeal or bran meal • heavy mulch
<p>Cutworm</p>  <p>(adult: nocturnal moth) colour:</p>	<ul style="list-style-type: none"> • nocturnal moth: adult • in the morning, you’ll find your seedlings on the ground, nipped off at ground level • plants look chopped down and are left to die 	<ul style="list-style-type: none"> • make collars of cardboard for all valuable seedlings • dig around the base of destroyed seedlings, and destroy any cutworms you find(they usually spend the day underground beside the plant they fed on the night before)
<p>Earwig</p>  <p>(colour: mainly black with red markings and pincers)</p>	<ul style="list-style-type: none"> • earwigs are often a common sight everywhere around the garden 	<ul style="list-style-type: none"> • an inverted flowerpot filled with crumpled paper will attract them • in the morning, shake the flowerpot into a pail of water to drown the earwigs • plant your carrots (which earwigs love) early or late in the growing season to outwit them

BUCKET GARDENING

Even if you live in an apartment or in a house with a small yard, you can still grow vegetables and other plants in containers on your balcony or patio. With a small bucket garden, you can avoid many of the problems of a large garden – like weeds – and still enjoy fresh vegetables that you have grown yourself.

Types of Containers

You can use milk cartons, big tin cans, plastic or metal buckets, garbage cans, peach baskets, or anything else that you can find that could hold soil.



Put holes in the bottom of your bucket to let water out. You can use a nail to make the holes.



The soil needs to be deep enough for your plants' roots.

You need **soil 6 to 9 inches deep** for plants like beans, lettuce, spring onions, carrots, radishes, and spinach.

You need **soil 1 foot (12") deep** for tomatoes, squash, peppers, long carrots.

The bigger the container for your plants, the better yield you can expect!

Good Bucket Plants

Sunny Balcony: need more than 6 hours of direct sun a day

Beans: bush beans are best. Plant 3 in an 8" wide pot.

Tomatoes: cherry tomatoes are best, they need a 6" pot. For bigger tomatoes, they need a 12" pot. Tomatoes need lots of sun and need to be tied up to a stick.

Peppers: need lots of sun. Tie to a stick to hold them up. Plant one in a 12" pot

Radishes: plant 2 inches apart, or three in a 6" pot. Ready to eat in a month.

Summer Squash, Zucchini: need 2 foot (24") deep and 2 foot (24") wide pot (note: buy varieties designed for growing in containers)

Cucumbers varieties designed for pot gardening.

Shady Balcony Plants



Beets: plant 3" apart, use when leaves 5 to 8" tall, or after two months

Carrots: plant 2" apart. Ready to eat in two to three months

Chives, and Onions: need 6" wide pot

Garlic: plant garlic cloves 6" apart, pick when the plant top dies

Herbs: all kinds grow well in pots, bring indoors in winter

Lettuce: plant leafy lettuce, 4" apart

Spinach: needs to be kept cool and wet, plant 6" apart

Care of plants

Water: Water before soil dries out or plant wilts, (more often in July and August). It can be very windy on balconies which dries out your plants, so keep them watered. You can also use mulch on the soil to keep it moist. Mulch can be straw, leaves, compost, newspaper, aluminum foil, or black plastic.

Sun: If your balcony is dark and shady, put tin foil on the soil to reflect sun onto your plants.



Compost: Add compost to your buckets to give your plants extra food. Mix lots of compost with the soil before you plant (half and half is best).

Insects: Because there are less insects on high balconies, you might need to pollinate the flowers on the plants to get fruits and vegetables. You can use a paintbrush to spread the pollen around.

Most pest insects can be killed by using a mixture of soap and water sprayed on the leaves (see tips on pest control).

Extending the growing season: If you plant late, and your vegetables are not ready by the fall, you can bring most plants inside to sit by a sunny window.

Water Conservation

Raised Beds versus Flat Beds

For efficient water conservation, prepare a soil surface for maximum water penetration. This means planting in an area with is created to ensure that water stays in the root zone of the plant and does not run away from it to be wasted. Effective ways of doing this include a flat surface, or if your soil is prone to flooding or is in a poorly drained wet area, a larger raised bed with a flat surface on top may be preferable. If using a raised bed, ensure that you create some raised edges around the top of the raised bed to ensure the water stays in the bed and does not run off down the side. Please note that raised beds can dry out much quicker than a flat surface. In this case, mulch will help.

Mulching and Soil Tilth

Managing soil tilth to include additional organic matter and compost will promote water penetration and retention. For maximum water conservation, apply compost to the soil surface as mulch after transplanting and seeding. This will allow the cold spring soil to warm up before the application of the cooling mulch layer, thus enhancing seed germination and early spring transplant vigour. The surface compost layer will conserve water during the hot summer season and keep root systems cooler. The compost layer can be worked into the soil at the end of the growing season or in the early spring before planting.

Cultivating and Weeding

A number of good gardening practices will help in conservation efforts. For example, don't plant in soils that are too cold--seeds won't grow satisfactorily, and water will not be properly absorbed. From the start, weed control is very important in your garden. Weeds waste water, and they compete with vegetable plants for nutrients and sunlight. For maximum water use, maintain excellent weed control in your garden. If you are not using a surface mulch, cultivation of the soil should be shallow. Deep tillage or hoeing not only damages plant roots but also allows moisture to evaporate. Very shallow weed control with a scuffle or push hoe is best. (A scraping action with the scuffle hoe is best.)

Use Water Wisely



Root zones. When you use water, try to concentrate it in the plants' root zone. The less water you apply between the rows where roots can't use it, the less water you lose to evaporation. In addition, water from a sprinkler won't all reach the soil surface because of evaporation--a loss of up to 25%. Several techniques will help place the water in the root zone where it's needed:

1. For crops like squashes and cucumbers that are usually grown in a hill, bury a juice or coffee can with the bottom at root level. Punch holes in the bottom of the can, so the water you pour in it will reach the roots with a minimum of loss.
2. You can irrigate individual plants like tomatoes, peppers, and eggplants in the same manner, using a slightly smaller can. Punch the holes in the can only on the side next to the plant.

Sprinkler irrigation. If you use this system, minimize water losses by:

1. using a sprinkler that will cover the garden only, not the surrounding area;
2. watering early in the morning when air is cool, wind is low, and water pressure is better on municipal systems; or
3. using a rate of application that permits all water to soak in and not run off the garden area.

Soak the soil. When you water, thoroughly soak the soil to a depth of 6 to 8 inches and do it less frequently. Depending on stage of growth and temperatures, watering once per week is usually sufficient, and only then if you do not receive adequate rainfall during the period.

Try closer rows. A smaller area gardened more intensively will produce more vegetables in relation to water usage. You can grow quite a few vegetables much closer together than traditional 2 ½- to 3-foot rows. You can place radishes, onions, beets, carrots, etc., in rows as close as 1 foot apart. This way, you make better use of the water you apply in the root zone. In addition, a soil shaded by vegetable leaves loses less water by evaporation to the atmosphere.

Container planting of vegetables will use more water than in-ground gardening. Containers dry much faster than garden beds and rows. However, if container planting is your only option, try insulating your containers by placing them inside a larger pot and filling the space between the two containers with soil.

When Should I Plant My Vegetables?

Here is a guide to help you know when to plant and when to harvest your vegetables. The guide lets you know when you can first plant seeds or seedlings outdoors in the spring.

This often depends on when the last frost occurs (marked with a * on the chart). If it is a very warm spring, you can plant earlier, or if it is especially cold, you should plant a little later.

The guide also shows you how many weeks it takes for each vegetable to mature - from 4 weeks for radishes, to 20 weeks for onions.

Some vegetables can be planted again once the first crop has been harvested. For these ones, the last possible time that you can plant is marked by an X on the chart. You can start seeds anytime between the first and last plantings.

Most of the other vegetables can also be started later than the date marked for first planting, but you must remember that many plants are killed by frost, so make sure the plant will have enough time to mature before the first fall frost (marked again with a *).

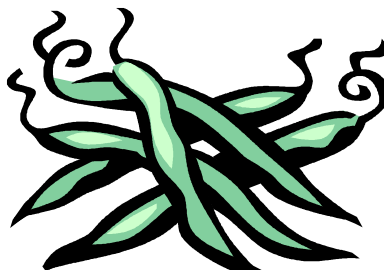
PLANTING GUIDE O = First outdoor planting, X = Last possible planting, I = Start seeds indoors, H= Harvest, * = Approximate times of last and first frost

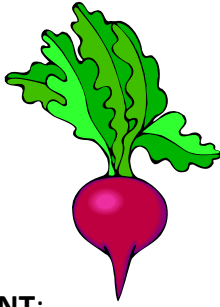
Date	A p r 4	M a y 1	2	3	*4*	J u n 1	2	3	4	J u l 1	2	3	4	A u g 1	2	3	4	Sep t 1	2	*3 *	4	O c t 1	2	
Beans					O							H	X								H			
Beets	O							H					X								H			
Broccoli	I	I	I	I	O												H							
Cabbage	I	I	I	I	O												H							
Carrot			O								H	X											H	
Corn					O										H									
Cucumber					O								H											
Eggplant	I	I	I	I	O													H						
Garlic	O																H							
Lettuce					O			H									X				H			
Onion	O																				H			
Peas			O									H	X											H
Peppers	I	I	I	I	O													H						
Potatoes	O																H							
Radishes			O			H											X				H			
Spinach	O						H																	
Summer Squash					O							H												
Winter Squash						O												H						
Tomatoes	I	I	I	I	O													H						
Turnips	O							H							X									H

BEANS

(Bean Family)

- PLANT:** 3 to 4 inches apart, 1 inch deep
Bean seeds will not sprout in cold soil. So it is important to plant seeds in the garden after the last frost of spring (late May)
- PLANT NEAR:** Carrots, cauliflower, cucumbers, cabbages, corn, radishes
- DON'T PLANT NEAR:** Garlic, onion, chives, leeks, beets
- CARE:** Beans need a lot of sun
Water often, don't let the soil dry out
In hot weather, you can cover the soil with a mulch, like compost, to keep the soil moist
- HARVEST:** Ready to be picked in about 8 weeks
Pick when pods are small and tender; if you wait too long, the plant may stop producing beans
- PESTS:** Aphids, bean beetles, birds, rodents, blight, mildew
Marigolds and summer savory keep the bean beetle away
Plant bush beans and potatoes in neighbouring rows- the potatoes keep the bean beetle away and the beans keep the potato bug away
- NOTES:** Plant climbing beans next to corn, the beans will climb up the stalks
Turn the plants back into the soil when they die; bean plants are high in nitrogen and are very good for the soil





BEETS

(Beet Family)

PLANT:

The seeds should be planted 1 inch apart, then when sprouted, thinned to 4 inches apart (note: you can eat the young sprouted plants which you have thinned)
Plant seeds in the garden in early spring, although your early crop may be affected by leaf minor larvae.
You can plant a second crop after you have picked the first

PLANT NEAR:

Broccoli, cabbage, cauliflower, lettuce, onions, Swiss chard

DON'T PLANT NEAR:

Pole beans (climbing beans)

CARE:

Beets like lots of sun, but can grow in some shade as well
Need lots of water to keep the roots tender
Put compost in the soil before planting

HARVEST:

Ready to be picked in about 8 weeks
You can eat the leaves and the roots

PESTS:

Cutworms, slugs, snails, leaf miners, rodents

NOTES:

The roots will stay good into the late fall if you cover them with a heavy mulch, such as dry leaves or straw; squirrels may steal your beets; chicken wire (or mesh wire) can be used to cover the planting area and discourage the squirrels

BROCCOLI

(Cabbage Family)

- PLANT:** 18 inches apart, 1/2 inch deep (these plants need their space!)
Grows best if you start the seeds indoors in early spring and transplant them to your garden up to 3 weeks before the last frost or in the mid June for a fall harvest.
- PLANT NEAR:** Beets, cabbage, carrots, marigolds, nasturiums, thyme, tomatoes
- DON'T PLANT NEAR:** Strawberries, mustard
- CARE:** Broccoli plants enjoy cool temperatures, a lot of sun and love nutrient-rich soil
They need to be watered often, use a mulch in hot weather to keep the soil from drying out
Put compost in the soil before planting
- HARVEST:** Ready to be picked in about 16 weeks
It is ready when the flowering head is big enough to eat and the buds are still tightly closed and green.
If you wait too long, it will turn into yellow flowers
Cut off the head only, just above the large leaves, the plant will produce smaller heads in week or two
- PESTS:** Aphids, cutworms, root maggots, cabbage worms



CABBAGE

(Cabbage Family)

- PLANT:** 18 inches apart, 1/2 inch deep
Grows best if started indoors in early spring for an early crop or seeded already in the garden in mid-June for a fall harvest.
Put the small plants in your garden no more than 3 weeks before the last frost.
- PLANT NEAR:** Carrots, cucumbers, spinach, celery, dill, onions, potatoes
- DON'T PLANT NEAR:** Strawberries, tomatoes, pole beans (climbing beans)
- CARE:** Cabbage plants like cool temperatures, lots of sun, but don't like to get too hot, so some shade is good too. Cabbage likes lots of water when it is small. When it is big don't water it as much or the head might split. Cabbage will not thrive in poor soil and therefore will need a lot of nutrients (example: a large amount of compost worked into the soil) to grow well.
- HARVEST:** Cabbage will be ready in about 16 weeks.
Cut when the head has formed and feels firm.
- PESTS:** Slugs, snails, aphids, cabbage worms, cutworms, flea beetles
Strong smelling herbs like hyssop, thyme, wormwood, rosemary and peppermint will keep the cabbage butterfly away.
- NOTES:** Don't plant cabbage in the same place in your garden every year, or where you planted broccoli or cauliflower. This will help to keep pests away from your plants.





CARROTS

(Carrot Family)

- PLANT:** In rows, 1/2 inch deep (warning: seeds are very small, so be careful to sow them thinly.)
Dig the soil well before planting (compost can be added to the soil at this time to make the soil less compact).
Plant early or late; late May or mid-June is best.
- PLANT NEAR:** Lettuce, tomatoes, radishes, cabbage, onions, peas, potatoes
- DON'T PLANT NEAR:** Dill, also next to a pathway in your garden; footsteps could compact the soil and cause misshapen roots.
- CARE:** Carrots will grow well with lots of sun, or with some shade.
They need a lot of water when they are small but cut down on the water when they are big to keep the root from splitting.
- HARVEST:** Carrots are ready in about 10 weeks.
Pull the plants with the largest tops. You can feel around in the soil to check the size of the root.
You can leave the carrots in the ground until mid-autumn because a few frosts often makes the root sweeter.
- PESTS:** The biggest danger to carrots is earwigs in the spring (they love the tender foliage). Other changes include carrot rust fly, cutworms, animals. Strong smelling herbs like rosemary, sage and wormwood help keep the carrot fly away. Crop rotation (planting in a different location every year) will prevent small worms which burrow into the roots of carrots.

**** NOTE:** Rocks in the soil will make the root split when it grows.

CORN

(Grass Family)

PLANT:

4 inches apart, then thin later to 8 inches apart
Plant 1 inch deep to keep the birds from eating the seeds.

Plant seeds in the garden after the last spring frost.
Plant at the north end of the garden so it doesn't shade your other plants.

Corn will grow best when planted in a block of 3 or 4 rows.

PLANT NEAR:

Potatoes, beans, cucumbers, pumpkin, squash, melon

DON'T PLANT NEAR:

Peas, tomatoes

CARE:

Corn needs lots of sun, and therefore is best planted in a larger garden

Corn needs lots of nutrients, so add lots of compost to the soil before you plant.

HARVEST:

Corn is ready in 9 to 13 weeks.

Break off the ear when the silk turns brown.

Check the kernels. When the juice from the kernels is white, they are ready to be picked. If the juice is clear, they are not yet ready.

PESTS:

Corn borer, ear worm, birds, and animals (note: squirrels will break the young plants and raccoons will steal the ripe cobs).

NOTES:

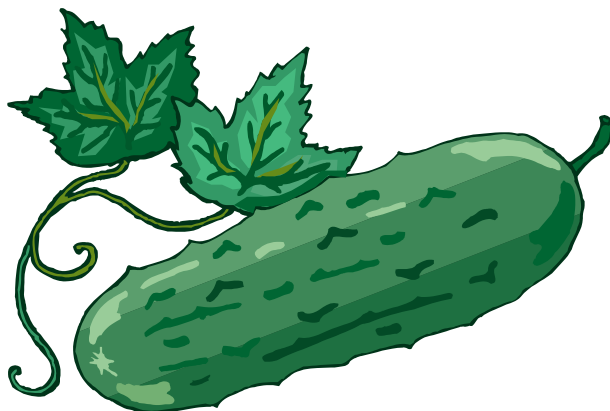
Plant climbing beans next to corn. The beans like to climb the corn stalks and they give lots of nitrogen to the soil, which is very good for the corn. When the beans die, leave the plant in the soil.



CUCUMBER

(Cucumber Family)

- PLANT:** 10 to 12 inch apart, 1/2 inch deep
Plant seeds in the garden after the last spring frost.
Seeds best started indoors and then transplanted in late May.
- PLANT NEAR:** Beans, peas, radishes, sunflowers, corn
- DON'T PLANT NEAR:** Potatoes, strong smelling herbs
- CARE:** Cucumber plants like a mix of sun and shade.
They need lots of water so make sure the soil doesn't dry out (you can use a mulch to help keep the soil moist).
Add some compost to the soil before planting.
In a small garden, it is best to grow beside a frame or cage structure (so that the plant vines can grow 'up' and not take up a lot of space in your garden).
- HARVEST:** Cucumbers will be ready for picking in about 9 weeks.
Cut cucumbers off the vine when they are a good size.
Pick them as soon as they are ready, or else the plant will stop producing.
- PESTS:** Cucumber beetle, aphids, nematodes, mildew, wilt
- NOTES:** Cucumber plants can be trained to grow on a trellis or frame.



EGGPLANT

(Potato Family)



- PLANT:** 10 to 12 inches apart
Eggplant grows best when planted indoors in the early spring then moved to the garden after the last frost.
- PLANT NEAR:** Beans, peppers, tomatoes, potatoes
- CARE:** Eggplant likes lots of sun.
Eggplant needs lots of water, even more when it is growing fruit.
Put compost in the soil before planting.
- HARVEST:** Eggplant is ready to be picked in about 19 weeks.
Pick the fruit when they are dark and shiny.
- PESTS:** Cut worms, flea beetles, wilt
- NOTES:** To avoid disease, don't plant eggplant in the same spot during the next growing season.
When planting eggplant, avoid planting it where you where you had planted tomato, potato, or pepper plants in the previous growing season.

GARLIC

(Onion Family)

PLANT:

3 to 6 inches apart, ½ inch deep
Plant cloves of garlic with the pointy end up in your garden 4 weeks before the last spring frost. It is important to plant garlic when it is still a bit cold outside. Better results can come from planting garlic in the fall for next year– like all bulbs.

PLANT NEAR:

Cabbage, broccoli, cauliflower, tomatoes

DON'T PLANT NEAR:

Peas, beans

CARE:

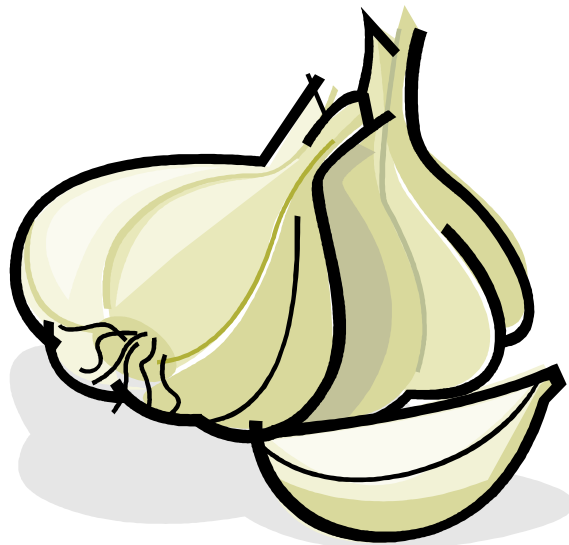
Garlic likes lots of sun.
Don't water too much; garlic likes the soil to be a bit dry.

HARVEST:

Garlic will be ready to pick in 10 to 12 weeks.
Pull up the plant when the tops are dead and dry.
Cut off the top and leave the bulb in the sun for a few days to dry.
You can store garlic in a cool, dark, dry place all winter.

PESTS:

Onion thrips, mildew
Not many pests bother garlic, so it is good to plant between other plants in your garden to help keep the bugs away.





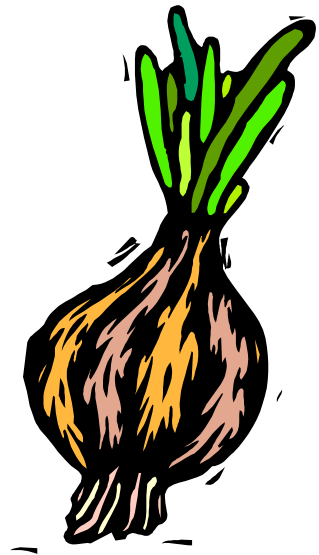
LETTUCE

(Lettuce Family)

- PLANT:** Sprinkle seed and cover lightly; later on, you can thin to 4 to 6 inches apart.
Plant seeds in the garden after the last frost.
You can start the seeds indoors in the spring if you want an early harvest.
You can plant another crop every 4 weeks.
- PLANT NEAR:** Strawberries, cucumbers, carrots, radishes, beets
DON'T PLANT NEAR: Cabbage, broccoli, cauliflower
- CARE:** Lettuce likes lots of sun in the spring, but likes shade in the hot summer (note: it grows well in containers).
Lettuce likes lots of water; if it doesn't get enough the leaves will taste bitter.
Add compost to the soil before planting
- HARVEST:** Lettuce will be ready in 4 to 6 weeks.
You can pick it when the leaves look big enough to eat.
Don't wait too long, or your lettuce will start to flower.
- PESTS:** Slugs, cutworm, sow bugs, wire worms, snails, aphids and animals.

ONIONS

(Onion Family)



PLANT:

3 inches apart (note: best if grown from 'sets' of small bulbs).

Plant the seeds in your garden after the last frost.

You can plant the seeds indoors in the spring if you want an earlier harvest.

PLANT NEAR:

Cabbage, broccoli, cauliflower, beets, strawberries, tomatoes, lettuce, carrots

DON'T PLANT NEAR:

Peas, beans, asparagus

CARE:

Onion likes sun but will grow in some shade.

Water well, but stop when the tops fall over in mid summer.

HARVEST:

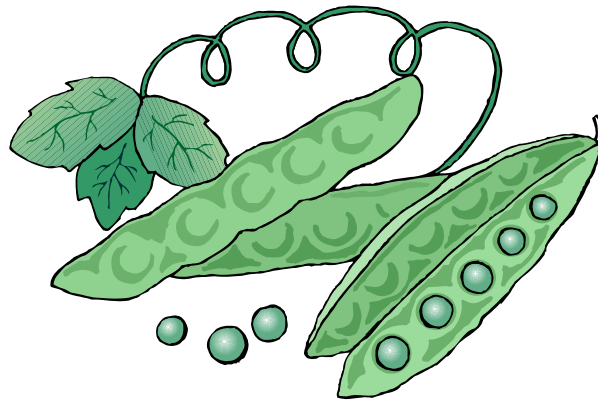
Onions are ready to be picked about 20 weeks after planting.

Onions can also be picked and eaten when they are smaller- these are called *green onions*.

For large onions, after you have stopped watering them for a few days, pull the plant up and leave it in the sun to dry for a day or two. The tops and skins should be dry. You can then trim the roots before storing them.

PESTS:

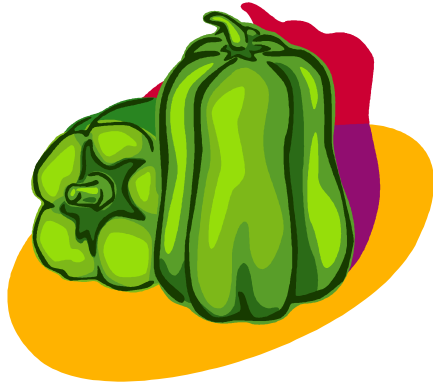
Onion fly maggot, thrips and mildew.



PEAS

(Bean Family)

- PLANT:** 3 inches apart, 1 inch deep
Plant seeds in your garden 3 weeks before the last frost
You can plant a second crop two weeks later for a longer harvest.
- PLANT NEAR:** Carrots, turnips, radishes, cucumbers, beans, potatoes
DON'T PLANT NEAR: Onion, garlic
- CARE:** Peas like lots of sun in the spring, likes more shade in the summer.
They like lots of water. Never let the soil dry out – use mulch in the summer.
Best to have stakes, sticks or a fence-like construction to keep these vine-like plants upright
- HARVEST:** Peas will be ready to pick in about 10 weeks.
The pods can be picked when they are small and eaten whole, or you can wait until the peas are bigger.
- PESTS:** Aphids, birds, animals, mildew, wilt and rot
- NOTES:** You can train the plants to grow on a frame or trellis.
When the plants die, turn them into the soil, it will give the soil lots of nitrogen, which is good for your garden.



PEPPERS

(Potato Family)

- PLANT:** 10 to 12 inches apart, 1/2 inch deep
Plant the seeds indoors in the early spring and move the plants to your garden after the last frost (note: they are very frost tender and may need to be covered in a cold snap).
- PLANT NEAR:** Basil, carrots, eggplant, onions, parsley, tomatoes
- CARE:** Peppers like lots of sun, but if they are too hot, they may drop their flowers, so make sure they get some shade in the summer.
Don't water them too much, or their roots will rot.
- HARVEST:** Peppers will be ready in about 19 weeks.
Cut the fruit when they look big enough to eat.
For hot peppers, you must wait until the peppers change colour before you pick them.
- PESTS:** Cutworms, flea beetles, aphids, hornworms, mildew, wilt, rot
- NOTES:** Hot peppers can be ground and made into a spray or dusted on plants to keep away bugs and animals.



POTATO

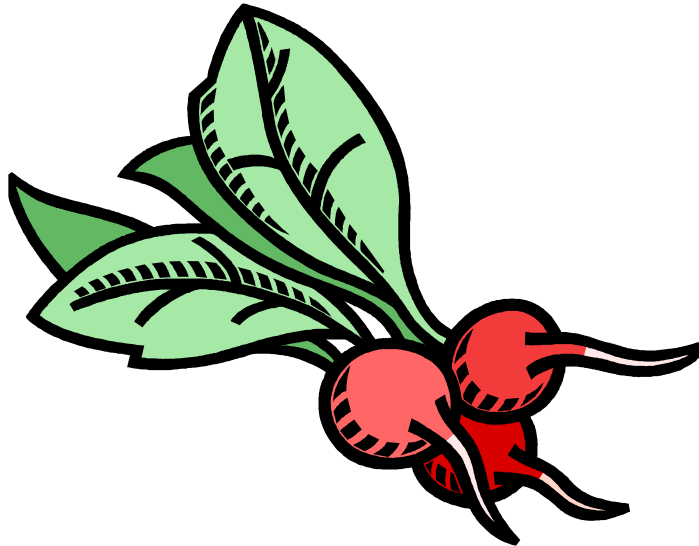
(Potato Family)

- PLANT:** 12 inches apart, 4 inches deep
Cut a potato into 3 or 4 pieces, making sure there is an “eye” on each.
Plant the potato pieces in your garden 3 or 4 weeks before the last frost.
- PLANT NEAR:** Beans, peas, corn, cabbage, broccoli, cauliflower, horseradish, marigold, eggplant
- DON'T PLANT NEAR:** Tomato, squash, pumpkin, cucumber, raspberry, and sunflower
- CARE:** Potatoes like lots of sun on the leaves; you must keep the tubers in the ground completely covered with soil so that they are not exposed to ANY sun light.
Make sure the soil doesn't dry out - use a mulch.
Don't let the plants get too wet - don't get the leaves wet when watering.
Add compost to the soil before planting.
- HARVEST:** Potatoes will be ready to be picked in 10 to 12 weeks.
Dig up the roots after the plant has flowered or when the leaves start to turn yellow.
Put potatoes in the sun until dry on all sides, turning them often before you store them.
Potatoes will keep all winter in a cool, dark place.
Don't eat potatoes that are green.
- PESTS:** Colorado potato beetle, flea beetle, aphids, blight

RADISHES

(Cabbage Family)

- PLANT:** 3 inches apart- don't overcrowd them!
Plant seeds in the garden 3 weeks before the last frost.
You can plant more seeds every 3 or 4 weeks.
- PLANT NEAR:** Cucumbers, lettuce, melons, peas, nasturtiums, squash,
beans
- DON'T PLANT NEAR:** Hyssop, grapes
- CARE:** Radishes will grow in lots of sun or some shade
Radishes like lots of water- if they dry out they become
hot tasting and hard.
- HARVEST:** Radishes are ready in about 4 weeks.
Pull them up when the root is large enough to eat -
don't wait too long, or it will start to flower.
- PESTS:** Root maggots, aphids
- ** NOTE:** radishes are valuable to grow to protect cucumbers even if you never eat them

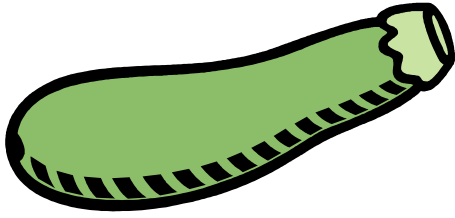




SPINACH

(Beet Family)

- PLANT:** 4 inches apart
Plant seeds in garden 4 or 5 weeks before the last spring frost.
You can plant another crop after you have picked the first one, or you can plant every two weeks in spring.
- PLANT NEAR:** Cauliflower, celery, eggplant, strawberries
- CARE:** Spinach likes lots of sun in the spring, but needs shade in the summer.
Give spinach lots of water, more in hot weather.
Don't touch the leaves when they are wet, you might break them.
Pull up all the weeds around your spinach, especially when it is small.
- HARVEST:** Spinach is ready to be picked in about 7 weeks.
You can cut the leaves when they look big enough to eat, or you can pick the whole plant.
Don't wait too long, spinach will start to flower quickly in hot weather.
- PESTS:** Leaf miners, aphids



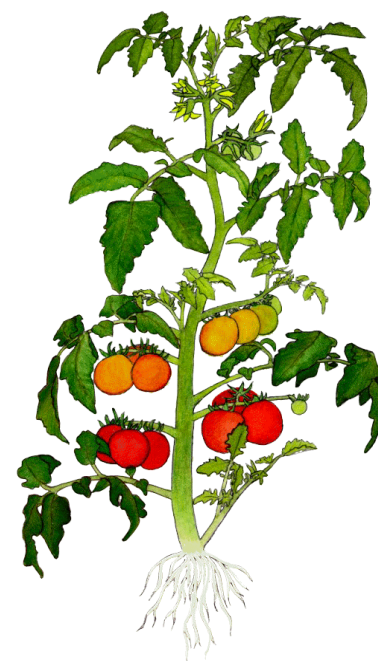
WINTER & SUMMER SQUASH (ZUCCHINI)

(Cucumber Family)

- PLANT:** In hills 3 to 6 feet apart, 1/2 inch deep (zucchini closer, winter squash farther apart)
Plant seeds in your garden after the last spring frost or you can start your seedling indoors in April and plant outside in May.
- PLANT NEAR:** Radishes, corn, cucumbers, nasturtiums
- DON'T PLANT NEAR:** Potatoes
- CARE:** Zucchini likes lots of sun and warm weather.
Zucchini likes lots of water, so don't let the soil dry out.
Try not to get the leaves wet when you water it as this can cause mildew.
Add compost to the soil before planting.
Remember: Squash vines love a lot of space
- HARVEST:** Zucchini is ready to be picked in about 8 weeks.
Cut off the fruit when they are 6 to 9 inches long.
Winter squash is ready in about 12 weeks.
Wait until the first frost has killed the plant, then cut the fruit off.
Leave them in the sun for a few days before storing them.
- PESTS:** Squash vine borer, squash bug, cucumber beetle, white flies, mildew and wilt. Plant radishes close by as a protector for plant.
- NOTES:** Plant the seeds in hills, 3 to 6 feet apart
Some kinds of squash can be trained to grow on a frame; there are special seed varieties which produce compact plants for small gardens.
Winter squash can keep all winter if you store the fruit in a cool, dry place.

TOMATOES

(Potato Family)



PLANT: 12 inches apart, ½ inch deep
Start growing the seeds indoors in the early spring. (April). Move the plants into your garden after the last frost (late May).

PLANT NEAR: Onions, chives, garlic, carrot, parsley, marigold, nasturtium, asparagus, basil, sage, rosemary, eggplant, peppers

DON'T PLANT NEAR: Cabbage, broccoli, cauliflower, corn, potatoes

CARE: Tomatoes need lots of sun, even more when they are growing fruit.
Tomatoes need lots of water. Never let the soil dry out, use mulch in hot weather.
Use tomato 'cages' to support the tall plants.
Add compost to the soil before planting. Keep plants from drooping onto wet mulch which can rot your crop.
Important: pick off yellow leaves from tomato and remove them from the garden

HARVEST: Tomatoes will be ready to be picked in about 17 weeks. Leave the fruit on the plant and pick them only when they are red.

PESTS: Cutworm, whitefly, wilt, and the 'blight' which causes the bottom leaves of the plant to yellow

NOTES: Cut off side branches and yellow leaves - this will make your plant grow more tomatoes.



TURNIPS

(Cabbage Family)

PLANT:

1 inch apart, ½ inch deep (thinning later to 4 to 6 inches apart)

Plant seeds in your garden in the early spring.

You can plant a second crop in the middle of the summer.

PLANT NEAR:

Peas

DON'T PLANT NEAR:

Potatoes

CARE:

Turnips will grow in some shade.

Turnips need lots of water to grow quickly, never let the soil dry out.

HARVEST:

Turnip roots are ready to be picked in about 8 weeks.

Pull up the plant when the leaves are about 4 inches across.

You can eat the leaves too.

PESTS:

Aphids, flea beetles

NOTES:

If you are growing turnips late in the season, leave the root in the ground for a few weeks after the first frost, it will make the root taste sweeter.



Harvest Time

The best part of gardening is when you finally get to pick the fruits and vegetables you have been working so hard to grow. But what do you do when you have too many to eat while they are still fresh?

PRESERVING: Visit www.justfood.ca to find out when preserving workshops will take place.

There are lots of things you can do with your vegetables to keep them good through the winter.

- Vegetables can be blanched quickly in boiling water, then put in bags or containers in your freezer.
- Vegetables can be dried, by slicing them thinly, laying them on a baking sheet, then placed in your oven, on *very low heat*, for an hour or two. Then you can store them in a jar or bag in your cupboard.
- Many people preserve their fruits and vegetables in cans or jars. You can make jam, salsa, relish or pickles with many of the plants you grow in your garden. *If they are done properly*, the jars of preserves will keep well over the winter in your cupboard. *If not done properly*, preserves can cause food poisoning. Please consult cookbooks or local nutritionists for information on preserving techniques, and food safety issues.
- Many kinds of vegetables will keep well in a cool, dark place, such as a basement, over the winter. Potatoes, turnips, beets, carrots, onions, garlic, pumpkin and winter squash are the best. Make sure they are kept cool, and not too damp. Check regularly to watch for possible decay. Store vegetables where they do not have to be piled on top of each other, and lightly cover them to shield them from light and extreme temperature changes.



Preparing for Winter

By the first frost, you should have picked most of your vegetables, as the frost will kill or damage most plants, like **tomatoes, summer squash** and **peppers**. But some plants will keep growing after the frost, and actually taste better if they are left in the garden well into the fall. **Parsnips, kale, lettuce, onions, radish, carrots, turnips, spinach** and **beets** are some plants that will grow after the frost. Other plants can even be planted in the fall, left in the garden to grow all winter, and picked in the spring. **Garlic** and **spinach** are two of these plants.

The fall is also a good time to get your garden ready for next spring. After you have harvested your vegetables, pull out the dead plants. You can put them in your compost pile, but if they have a **disease**, it is best to put them in the garbage or fireplace. When this is done, dig your garden to loosen the soil, and add compost to make your soil healthy and ready for when you plant in the spring.

Another way to make your soil healthy for the spring is to plant a **cover crop**. This is a plant that grows in cold weather and also adds valuable nutrients to the soil as it grows. In the spring, you would turn the plant under into the soil before planting your garden. Some good cover crops are **Rye Grass, white clover, winter wheat** or **barley** (plant in mid-September).



GLOSSARY

Beneficials - These are birds, insects or wild plants that are good for your garden. The birds and insects might eat some of the harmful pests in your garden. Some wild plants attract these beneficial animals and bugs, or have odours that repel pests, so you want to keep them in your garden.

Blight - Causes bottom leaves of tomato plant to yellow and kills the rest of the plant as the blight spreads up the stem.

Bt - Or “*Bacillus thuringiensis*” is an effective ‘organic’ pesticide sold under such trade names as Dipel or Sok-Bt. Sold in concentrated form, it is a solution of bacterial spores which is diluted with water before being applied to plants.

Companion Planting - Some plants grow better when they are near other plants, like beans and corn. Some plants also help to keep pests away, so they can be grown near plants that have problems with pests. You may choose to further research this.

Compost - Plant and vegetable matter that is partially decomposed. Compost can be used as a fertilizer for the soil, or as a mulch.

Cover Crops - These are plants that are grown in your garden at the end of the season, left through the winter, and turned under to add nutrients to the soil before you plant in the spring.

Crop Rotation - When you move plants or families of plants to a different part of the garden each year. This helps to avoid pests and keeps the soil healthy.

Eye - This is what the beginnings of a sprouted plant on a potato root is called.

Fertilizer - Something that adds nutrients to the soil to make the soil healthier and plants grow better.

Frame - A wood or metal construction which acts as a support for vine plants such as cucumbers and squash.

Frost (First and Last)- The last frost in the Ottawa area usually occurs in May, and is the last time that plants might freeze at night if they are outside. Many plants should not be planted outside until after this date. The first frost usually happens late in September in Ottawa and many plants need to be harvested before this date.

Harvest - When your plants and vegetables are ready to be picked.

Mulch - A cover on the soil that helps to stop the growth of weeds, and keeps the soil cool and damp.

Organic Gardening - A way of growing plants without using harmful chemicals for pesticides or fertilizers. Organic gardeners use methods like companion planting, crop rotation, composting and mulching to keep their garden healthy.

Pest - An insect, animal or disease that is damaging or eating your plants.

Root Vegetables - These are plants that we grow for their roots. The root is the part of the plant that grows in the ground. Carrots and radishes are root vegetables. Other kinds of roots (including potatoes) are called tubers. There are also roots that are bulbs, for example, onions and garlic are bulbs.

Succession Planting - For quick growing plants, you can plant a second or third crop after the first one has been harvested. You can follow the guidelines for crop rotation when succession planting as well, to help keep your soil healthy.

Thinning - When your seeds start to grow, you may need to pull out some of the small plants to give the other ones room to grow.

Transplant - To move a plant from one place to another, like when you move small plants started indoors to your garden in the spring.

Trellis - A ladder or fence-like structure that can be used for your climbing plants, like cucumbers, peas or beans, to give them support and something to climb on.

The *Garden Guide* was created by the Community Gardening Network of Ottawa/Réseau de jardinages communautaires d'Ottawa (CGN/RJC).

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If you would like information on community gardens in Ottawa, please contact the CGN/RJC located at Just Food. You can reach us at 613-699-6850 x12 or email communitygardening@justfood.ca .

This guide can be downloaded for free from www.justfood.ca and is available in both English in French.

