

THE EDIBLE GARDEN

JULY 2018

RAISED BEDS

Susan Bicket
Master Gardener of Ottawa Carleton

WHAT ARE RAISED BEDS?

Areas where the soil is higher than the natural level of the surrounding ground. Most of us think of them as being surrounded by a retaining wall or being boxed in. There is no base, the bottom is open to ground beneath. Once a base is added as part of a structure they are considered planters.



Susan Bicket

WHY A RAISED BED? WHAT ARE THE ADVANTAGES?

- A raised bed allows you to control the quality of soil, and offers improved drainage for those on clayey soil or in low lying areas.
- Also soil conditions can be tailored to plant requirements, allowing plants that do not normally grow in the native soil to thrive.
- Raised beds allow vegetables to be grown in areas with little soil or contaminated soil.
- The beds often look neat and orderly.
- The soil warms up quicker in the spring allowing earlier planting.
- There is less water erosion in walled beds as the soil is held by the walls.
- Soil compaction is minimal as these beds are not usually walked on.
- This also means these beds can be worked sooner when the soil is wet.
- Weeds don't tend to grow in from the surroundings.
- The height can be chosen to accommodate people with difficulties bending, reducing back strain, or those in wheelchairs.
- Seating can be built in for ease of gardening.

WHAT ARE THE DISADVANTAGES?

- The initial cost is high in terms of material, labour and time; building the retaining walls and filling with soil.
- There is also an on-going maintenance cost as the beds must be periodically refurbished.
- The raised beds will become hotter and dry up more quickly in warm weather, so more frequent monitoring and watering is required.
- They are colder in the winter than soil so are not the best option for perennial vegetables, shrubs and trees.
- Roots of larger plants – trees and shrubs are restricted.



©Jon Last

Need help? Contact us at:

Telephone help Line: Wednesday and
 Thursday 1–3 pm (all year) :

613-236-0034 -

Ottawa E-mail help Line, monitored daily :

mgoc_helpline@yahoo.ca

Lanark E-mail help Line:

lanarkmg@gmail.com

Correction for June 2018 the name of the author of the Haskap article is Sheila Currie The editorial team is sorry for misspelling Sheila's name.

BEE LINE PLANT FOR CONTINUOUS BLOOM

Julianne Labreche
Master Gardener of Ottawa Carleton

Imagine waking up after a long winter's sleep and how hungry you'd be. My own stomach starts to growl if I skip even a single meal. Many bee species, including our native bumblebees whose queens overwinter in the ground, wake up ravenous by spring thaw and need food quickly to survive.

Gardeners these days are waking up too, figuratively that is, to the plight of bees and the importance of selecting and growing the right plants— flowers, herbs, vegetables, shrubs and trees— to provide them with the pollen and nectar sources that they need to survive.

After all, without bees, the fruits and vegetable shelves in our grocery stores would be almost empty. We can all help pollinators by creating bee-friendly spaces.

Attracting bees to the garden means planting for continuous bloom throughout the gardening season. It's important to select plants that bees visit throughout the

SITING

To grow vegetables the raised bed needs to be in full sun (6 hours or more of sun). There needs to be access all round for paths big enough to take a wheelbarrow or your mower. The site needs to be fairly level for ease of building. Try to avoid areas where there are tree roots. The roots will try to grow into the bed or may be adversely affected by the increased soil depth. Another consideration is drainage of the site, a raised bed can block the natural water flow. Avoid septic beds, siting at least 6m or more away. Orientate so that the long side is facing south to maximise light

SIZE

Length: Your choice.

Width: Assuming the bed is accessible from both long sides 2 times the reach of the gardener's arm, for most people this works out to about 1.2m. If only accessible from one side 1 arms reach.

Height: Is your choice and maybe anywhere from 15cm to just short of 1m. Factors affecting choice are accommodation to the gardener and type of crops to be grown. For example: lettuce will do well in 30cm, carrots need 45 to 60cm of soil, rhubarb requires 60+cm. Remember there is no bottom to the box so unless you have put in a weed barrier or located on a hard surface the roots will penetrate the soil below the box.

Shape: Usually these beds are rectangular, but they can be any shape. Imagination, skill and materials allowing.

PREPARATION OF SITE

Mark out the area the raised bed will occupy. Clear of weeds and level. For those siting over tree roots or with contaminated soil a weed barrier – geotextile – will be necessary to prevent roots either entering the bed or penetrating the contaminated soil. Double digging, and adding compost will benefit plants whose roots go below the bed or for those who wish to skip the weeding and double digging, a thick layer of cardboard or newspaper over the soil will kill grass and many weeds. This will eventually break down.

A wire mesh laid over the soil extending under the walls will prevent creatures burrowing into the bed.

MATERIALS:

1. The Walls:

There are many materials that can be used to create raised beds, but when growing food avoid materials that may contaminate the soil, including metals such as galvanised metal and cor-ten (steel sheeting which develops a rust patina), or use a barrier between the soil and wall. As the bed gets bigger, length or height, cross braces may be needed to prevent the walls bulging. The top of the walls must be level to prevent water running off.

- Wooden boards: Most of the pictures we see show raised beds built from wooden planks. Cedar is naturally rot resistant and lasts approximately 10 years. Avoid pressure treated lumber which although not as toxic as it used to be still contains contaminants which can leach out, also avoid railroad ties. The mostly commonly used plank size is 2x6 (38 x 140mm), but other sizes work too.
- Logs
- Rustic wicker/Wattle; branches woven through stakes
- Stones/rocks: a dry-stone wall, or one using a mortar
- Gabions: wire cages containing a fill such as rocks, or branches
- Cement blocks
- Large concrete pavers set on edge
- Bricks or wall blocks (masonry):
- Concrete
- HDPE (High-density polyethylene) this type of plastic is not supposed to leach. Its usually recycled material
- Sandbags
- Straw bales

Notes:

When building a wall using stones, cement blocks or bricks of more than 2 or 3 courses, or of concrete it is advisable to employ a professional. A gravel foundation will be required. After a few years walls built of wood or biodegradable materials will rot and need to be re-

seasons. The season begins early, in spring, when the ground thaws and hungry bees emerge. It extends into late fall when bees prepare for hibernation.

Bees are attracted to many kinds of blooms but they're especially attracted to flowers that are purple, blue or yellow. This is because of how they see. A mixture of both native and non-native plants will attract different bee species, including our non-native honey bees that arrived in Canada long ago with the early settlers.

Spring flowers include various spring blooming crocus, chives, Forget-Me-Not and Helleborus. Early blooming fruit trees—cherry, peach, plum, apple, crabapple and others— attract bees. Silver, red and sugar maples are bee magnets too, as well as other kinds of maples.

Don't rule out common weeds either. The often- unloved spring dandelion provides food for bees, as does clover in lawns. Avoid pesticides, both chemical and organic, that kill bees.

In mid-spring and throughout the summer, there are many plants that are bee-friendly, including herbs such as rosemary, sage, lavender and mint. Bees are attracted to the nectar in basil and oregano. Nectar-rich plants also include borage, wisteria, barberry and salvia. Consider pollen-rich plants too such as the common yarrow and California poppies.

Some plants provide a combination of nectar and pollen, so bees hit the jackpot. These include plants such as Blanket Flower, Blazing Star, Tansy and daisies. By planting in mass- in other words, using more than one plant of the same type— bees will expend less energy and be more productive in their food search.



Rudbeckia– Black eyed Susans, *Achillea*– yarrow, *Phlox*

Susan Bicket

placed.

When growing ornamental plants there are no restrictions on materials that can be used.

2. Fill:

- Garden soil, mixed with compost/well rotted manure, amended for optimal pH.
- Purchased fill. This can be topsoil, or a special mix. A selection of recipes is available on the internet.
- Lasagna method using a mixture of compostable material in layers. Leaves, thin layers of grass clippings, wood chips, shredded bark, straw – not hay. About 15 to 20 cm below the top, cover with a compostable barrier such as untreated cardboard, and cover with soil. This is best in deeper beds. For very deep beds a layer of tree branches and twigs can be added at the bottom as in a hügelkultur.
- Once the bed has been filled and the soil warmed up, mulch to help retain water and keep the bed cool. The soil will settle over time, especially when using compostable materials.

Maintaining

Generally, treat as you would inground beds. These beds still need to be weeded; mulch will help keep weeds down and moisture in. Watch the moisture levels and water during dry weather, raised beds dry out more quickly than inground beds. Avoid walking on the beds. In fall top up the beds with compost, amend if needed, mulch. It's also possible to use green manure crops. Periodically the soil may need to be completely changed.

RECIPE: SUMMER PUDDING

*Susan Bicket
Master Gardener of Ottawa Carleton*

This is an old recipe which is very flexible. Use the fruits in season and adjust to suit your tastes. It is made the day before serving.

INGREDIENTS

1 basin or deep dish

Sliced bread or sponge cake

Enough Soft Fruit to fill basin:—

- Currants, or
- Raspberries, or
- Strawberries or
- Blackberries, or
- Gooseberries, or
- Rhubarb, or
- Apples or
- A mixture of your choice

Sugar or other sweetener to taste

INSTRUCTIONS

- Remove the crusts from the bread
- Line the basin with bread, overlapping slightly.
- Cook the fruit with a little water until soft.
- Sweeten the fruit to taste
- Pour into the bread lined basin
- Cover with bread slices
- Place a saucer or plate on top and place weights on this
- Leave overnight in the refrigerator.
- Just before serving turn out of the basin onto a plate. The bread should have soaked up the fruit juices.
- Cut in slices and serve with cream or yoghurt or custard

Watch for *Trowel Talk* the Master Gardeners of Ottawa Carleton electronic monthly gardening newsletter available on the 15th at <http://mgottawa.ca/>

Visit the Almonte online community newspaper 'The Millstone' - <http://millstonenews.com/> - for a column by David Hinks of the Lanark County Master Gardeners; under the Gardening tab.

Master Gardeners of Ottawa-Carleton and Master Gardeners of Lanark County are member groups of Master Gardeners of Ontario Inc., a registered charity with the mission of providing gardening advice to homeowners. The Edible Garden logo was created by Jon Last (jonlast13@rogers.com).

Later in the summer, grow Black-Eyed Daisies, Flax, Cosmos, Dusty Miller, Pincushion, Sunflowers and Purple Coneflower. Some bee species will be attracted to vegetables in your garden too, including pumpkin, zucchini and squash. Consider mixing flowers and vegetables in your garden to create an edible feast for yourself and the bees.

Avoid fussier blooms such as double blooms and instead choose simple flowers with single blooms. This way, bees will have easier access to their food source.

It's good to know that gardeners can be part of the solution of righting wrongs including use of pesticides, introducing foreign bee species and diseases, monoculture in commercial farming and urban sprawl that reduces the habitat of our bees.

By the way, if you're worried about a sting, the risks are minimal unless you or someone in your family has a serious allergy to bee stings. Unless provoked, bees generally pose little risk to humans. Many native bees don't even sting.

So, buy, grow or trade plants for continuous bloom and be rewarded with the knowledge that you can be part of the solution to help our valuable bees.

FIRST AID FOR BEE STINGS

If you are unlucky enough to be stung by a bee:

1. Remove the stinger by scraping the area with a hard flat object such as a credit card or in a pinch, finger nail. The stinger has a venom sac on the end, pulling the stinger out may squeeze this injecting more venom.
2. Wash the sting area with soap and water.
3. Ice—use a cloth to protect the skin.
4. The area may swell so remove any tight fitting jewellery or watches near the sting site.
5. Medicate to relieve symptoms as needed.

Expect pain, itch, redness and swelling around the sting site for two or three days up to a week after.

WARNING:

For severe allergic reaction, stings in the mouth or eye, seek medical help immediately