



Trowel Talk!

January, 2016

Look up, way up

Buildings have steadily replaced valuable green space in increasingly dense urban areas. However, what no longer happens on the ground can happen higher up. Roofs don't have to be wasted space. According to satellite imagery from 2013, there were 509 green roofs in Chicago totaling almost 5.6 million square feet (520,257 square metres) with more planned.

A relatively new idea in North America; in Europe green roofs have been around for decades. Europeans continue to develop and refine technologies needed for effective installation and successful maintenance.



Photo: Mary Ann Van Berlo

Scotiabank Theatre in Vancouver has multiple levels of green-space.

Prior to World War II many farms, ours included, still had barns with sod roofs. With hay and straw stacked at the sides this enclosure was sometimes even cozier and warmer than the houses. In pioneer times many homes had sod roofs – a

practical solution born of necessity.

As far back as Babylonian times there were green roofs, the most famous being the hanging gardens of Babylon, created to reflect the immense power and wealth of its rulers.

Today there are two types of green roofs – intensive, which must be constructed on flat surfaces, and extensive which can be applied to traditional roofs – flat or up to a 45 degree slope. Intensive roofs, most often installed on commercial and municipal buildings, accommodate a wider variety of plants including small trees and shrubs. These are not for the average homeowner. Soil depth must be considerable and the load bearing capacity of the building must be adequately reinforced.

Extensive green roofs can be installed on ordinary garages, houses or balconies. They require a structural sandwich composed of a waterproof layer, root repellent membrane, filter cloth, moisture blanket and drainage system all underneath 20 cm of lightweight soil. The soil mix must retain some moisture but still be porous enough to allow excess to run off. Plants suitable for extensive green roofs are low-growing, low-maintenance and drought-resistant. Succulents, grasses and many plants with fibrous root systems make good choices. Where available pre-seeded mats of sedum and wildflowers are an option.

A certified landscape architect and even a structural engineer should be consulted in order to avoid costly mistakes. Although economic benefits vary in extent

and by location there is general agreement on the overall advantages of roof gardens.



Photo: Mary Ann Van Berlo

The six acre roof of the Vancouver Convention Centre is planted with a mix of grasses and wildflowers which are only cut once a year. It supports four beehives that produce about 110 lbs (50 kgs) of wildflower honey each year.

Roof-top plants, including endangered native plants, encourage wildlife and help preserve biodiversity – at least one Chicago roof supports hives for honey production. Home energy efficiency is increased through reduced heating and air-conditioning costs. There is also a reduction of "urban-heat-island effect". Plants help filter toxins from air and water and they absorb carbon dioxide emissions. Rainwater is retained before it evaporates and excessive storm runoff is controlled. There is noise proofing that provides quiet recreation and the welcome aesthetic effects of green spaces in urban settings. With roof-top herb gardens, high-end restaurants can actually serve fresh produce to their lucky customers.

Ottawans will be familiar with the green roofs on the Rideau Centre, the Provincial Courthouse and Algonquin College.

Up, up and away! You can't keep a good plant down!

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- Newsletter of the Master Gardeners of Ottawa-Carleton
- Volume 7, Number 1
- <http://mgottawa.ca>
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January TO DO List

- Enjoy making a wish list of the vegetable and ornamental plants that you want to grow next year. Use catalogues to source plants or to learn about their growing requirements.
- If you grow perennials, shrubs or trees from seed, check the germination instructions carefully. You may need to submit them to a period of cold (often 6-8 weeks) to break the seed's dormancy, so you may need to start some of them now.
- Check on any bulbs and tubers you have stored to make sure they are not going moldy or conversely are not drying out completely.
- If you have a gardening or plant identification question, ask a Master Gardener (contact information to the right).

Tip of the Month

The New Year brings fresh starts and resolutions to improve or try something new. Some gardening resolutions might include:

- **Grow a plant that you haven't grown before** (vegetable or ornamental). What better way to discover new plants than to see how they grow in your own garden.
- **Take more photos in the garden.** Looking through the camera lens makes you focus on the minute details in your garden. You'll find textures and patterns in plants that you hadn't noticed before. You'll also discover the beauty of insects, lichen, fungi, and other natural wonders.
- **Respect the soil!** It is the foundation of all garden successes. Don't continue to deplete the minerals and nutrients from the soil; instead, add organic matter such as compost, manure and mulch to feed the soil and maintain its nutrient

Master Gardeners of Ottawa-Carleton



Where to find us this month for free gardening advice!

ONGOING:

Telephone Help Line: 613-236-0034

- Wednesday and Thursday 1-3 pm (all year)

E-mail Help Line: mgoc_helpline@yahoo.ca

- monitored daily

- send photos of garden pests, diseases or plants for ID

CLINICS:

No clinics until spring.

SPEAKING EVENTS & WORKSHOPS:

Vegetable gardening – from pots to plots – January 19 – 7:30pm

Judith Cox, Master Gardener

Pretty Street Community Centre, corner of Pretty St & Orville St, Stittsville

Hosted by the Stittsville Goulbourn Horticultural Society (Guest fee \$4)

Plant guilds: taking companion planting to a new level – February 2 – 7:30pm

Rebecca Last, Master Gardener

Old Town Hall, 821 March Road, Kanata

Hosted by Kanata-March Horticultural Society (Guest fee: \$5)

Growing wonderful plants from seed – February 4 – 7:00pm

Rebecca Last, Master Gardener

Greely Community Centre, 1448 Meadow Drive, Greely

Hosted by the Greely Gardeners Group (Guest fee: \$2)

The raised bed garden—February 8 – 7:00 pm

Mary Shearman Reid, Master Gardener

Ottawa South Community Centre (Old Firehall), 260 Sunnyside Ave., Ottawa

Hosted by the Old Ottawa South Garden Club (Guest fee: \$7)

Hedges – planting, maintaining, renewing– February 18 – 7:30pm

Mary Shearman Reid, Master Gardener

CityView United Church, 6 Epworth Ave., Nepean

Hosted by the Nepean Horticultural Society (Guest fee: \$4)

Pruning Shrubs and Small Trees – March 3 – 7:00pm

Diane McClymont Peace

Greely Community Centre, 1448 Meadow Drive, Greely

Hosted by the Greely Gardeners Group (Guest fee: \$2)



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rich humus. Mulch will also reduce weed growth so we don't need to add 'weeding' to our resolutions!

- **Wean your lawn and garden from chemicals.** If the soil is healthy, there is no need to use artificial fertilizers. An organic garden will achieve a balance of good bugs to control pests (note: this balance will not be immediate, but give it time, it will happen). Also, if the soil is

healthy, the plants will be stronger and better able to withstand some disease and pest problems.

- **Share your gardening successes.** There are many gardening clubs and horticultural societies where fellow gardeners gather. These are the perfect venue to share what you've learned in your garden as well as sharing plants and produce.