

CROSS POLLINATION

Halton Master Gardeners Monthly Newsletter
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Halton Region
Master Gardeners



Red Maple *Acer rubrum*

By Ingrid Lombardo, Halton Master Gardener

Many deciduous trees show off vibrant colours of yellow, orange and red in autumn, but my favourite by far is our native red maple, *Acer rubrum*. Smoky pink-red flowers in spring, a dense canopy, red samaras in summer and bright red leaves in the fall give it multi-season interest. It can even be tapped for maple syrup in the winter! These qualities also make it a favoured landscape tree. *Acer rubrum* is widespread and native to two of the four Ontario Forest Regions: Great Lakes-St. Lawrence Forest and Deciduous Forest regions (the areas roughly south of mid-Lake Superior). It is hardy from zones 3-9.

The bark of young trees is smooth and light grey, becoming dark grayish with scaly ridges as they age. Leaves are 5-15 cm (2-6") long and wide, palmately lobed with 3-5 lobes and sharp irregular teeth emerging from one central point (Figure 3). Its winged seeds, also known as samaras, are the tree's fruit (Figure 4). A mature red maple can grow up to 25 m in height (40' to 60' high with a 40' spread) and have a 60 cm (2') trunk diameter with shallow, but widespread roots. Red maples require maintenance pruning to keep their form and strength in an urban setting. The tree grows quite straight, and branches come from the main stem. Knowing this, the growth habit needs to be considered when deciding where to plant this species to keep it healthy.

Image: Heather Holm, Cellophane Bee

Continued on next page

Red Maple (CONT'D)



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6

Figure 1: *Acer rubrum* showing its brilliant fall colour (Ministry of Natural Resources and Forestry, 2022), **Figure 2:** *Acer rubrum* flowers (University of Maine, 2023), **Figure 3:** Red Maple Leaf (University of Guelph: The Arboretum, 'Red Maple – *Acer Rubrum*', 2023), **Figure 4:** Red Maple Samaras (University of Maine, 2023), **Figure 5:** Note the variability in leaf shape of red maples: (Image: [Wild Adirondacks](#)), **Figure 6:** Crimson King, sometimes mistaken as 'red maple' (Missouri Botanical Garden, 2023)

Acer rubrum should not to be confused with non-native [invasive Norway maple](#) cultivars such as Crimson King (*Acer platanoides* 'Crimson King') which are sometimes incorrectly labelled as "Red maple". (See Figure 6)

Cultivars and Cultural Conditions

Since red maple can be quite variable in the wild (e.g., leaf drop can vary by four weeks depending on where the tree grows), several cultivars have been developed primarily for longer foliage retention, leaf shape and improved autumn leaf colour. Some of the more common selections are 'Red Sunset', 'Autumn Spire', and 'Scarlet Jewel'. 'Scarlet Jewel' was cultivated because it resists [frost cracking](#), unlike the straight species. 'Autumn Spire' has been cultivated for its columnar shape. Freeman's Maple (*Acer x freemanii*) is a natural hybrid between the red maple and silver maple. This maple species enjoys its 'wet feet', thriving in swampy forests or wetlands, and grows quickly like the silver maple but with the beautiful foliage of the red maple.

Supporting Biodiversity

A large number of species call this tree home: squirrels, a variety of bird species, inchworms (family *Geometridae*), Rosy Maple Moth (*Dryocampa rubicunda*), Maple Dagger Moth (*Acronicta retardata*), Orange-humped Maple Worm (*Symmerista leucitys*), Maple Looper (*Parallelia bistriaris*), Baltimore Bomolocha (*Bomolocha baltimoralis*), Cecropia Moth (*Hyalophora cecropia*), and the Cellophane Bee (*Colletes inaequalis*). Did you know that Cellophane bees are one of the first signs of spring? Read more on this [great blog](#). Watch the fascinating story of the *Colletes inaequalis* bee in [this video](#) from well-known Pollinator Conservationist, Heather Holm. 🌸

FUN FACT: Red maples always have something 'red'! Winter: red buds; Spring: red flowers; Summer: red samaras; Fall: red leaves

Read More:
[Forest Regions of Ontario](#)
[Trees of the Adirondacks: Red Maple](#)
[Lady Bird Johnson Wildflower Centre](#)
[Ministry of Natural Resources and Forestry-Red Maple](#)

MAY 'TO-DO' LIST

by Claudette Sims, Halton Master Gardener

- Clean sharp tools** – Before doing any garden work, take the time to sharpen & [clean your secateurs, pruners and saws](#). A simple wipe with rubbing alcohol between plants will help to stop the transmission of disease.
- Perennials** – Divide & transplant overgrown fall blooming perennials on an overcast day before they fully emerge. Check this extensive [spreadsheet of individual perennials](#) for when and how to divide them. Add wire supports/stakes around tall perennials as needed.
- Roses** – Check this informative blog about [caring for roses from the RBG](#). Prune roses just as the new growth is showing. Here's an [introductory video](#) to show you how. Consider adding some companion plants near your roses to attract beneficial insects which will control rose pests, e.g., [butterfly milkweed](#), dill, fennel, [golden Alexanders](#), or stunning ['Fireworks' goldenrod](#) or unusual [spotted beebalm](#).
- Tender annuals** – Wait until the temperatures are warm enough at night before planting, usually around the May 24th weekend.
- Tomatoes** – Transition seedlings to the garden slowly, starting with a sheltered location, from 1-2 hours on day 1, and increasing each day to full sun. Plant in the garden when they're about 15 cm (6") high when all danger of frost is past. Plant deeply, right up to the bottom leaves.



- Corn** – Sow corn seeds 'when oak leaves are the size of a squirrel's ear' - that's usually when the soil has warmed up enough.
- Lawn** – When you mow, leave clippings on your lawn to replenish the soil. May is a great time to revive your lawn, especially if it is looking thin and weak. Over-seed, especially in thin areas and then top dress with a 2cm (½ in) of fine textured compost or manure. Areas with moss may indicate soil has been [compacted and nutrient level is low](#). Consider [embracing the moss](#) and allowing it to grow or transition that area to non-invasive native [groundcovers](#) or a garden bed with plants suited to the existing conditions.
- Weeding** – Keep ahead of them!
- House plants** – Increase watering & feeding, preferably with a dilute organic fertilizer. If the soil is drying out quite quickly between watering, it may be time to repot to one size larger. Note: [hoya](#) & Nile lily ([Agapanthus](#)) flower when slightly pot bound, so repot these less often. Some houseplants may enjoy a summer holiday in the garden-transition them slowly.
- Check out** our [April newsletter](#) for any garden jobs you may have missed.

THE INSTANT POT GERMINATION HACK—DOES IT WORK?

By Bev Wagar, Halton Master Gardener

On April 21, 2023, *Smithsonian Magazine*, the official journal of that venerable institution, reprinted an unlikely article from *Modern Farmer* magazine: "[How to Germinate Seeds for Your Garden Using an Instant Pot.](#)" Because the article is short on detail and photos, and because I'm naturally skeptical, I reviewed it carefully and tried it out.

Materials

The materials list is comprehensive but somewhat restrictive. For example, you don't need a casserole lid. The idea is to replace the regular sealing lid with one that can be adjusted to allow air in, such as a plate or a cookie sheet. Curiously, it calls for a "casserole dish"—clearly an editorial blooper.

Steps

The method described is sometimes called the [baggie method](#). Pre-sprouting seeds this way requires quick and repeated 'plucking sessions' once germination starts, or the sprouts tangle and grow into the paper towel. So I also tried it the regular way using containers and germination mix.

The article instructions are sometimes unclear. For example, we're told to use one baggie, but several baggies, one for each species, can be done at the same time. As well, the article skimps on the topic of seed temperature.

How hot?

There's a brief mention of the interior temperature (of food inside, not the air) according to the Instant Pot user manual. As well, the article provides basic information on the germination temperature range for all warm-season vegetable crops. The assumption is that most of them will be just fine with whatever heat the Instant Pot produces on the *yogurt* setting. It's true that most warm-season vegetable seeds will germinate; the variable is *time*. [The further from optimum temperature, the longer it will take.](#)

Continued on next page

Click on photos for larger images



Image: Lyanne Betit via YouTube



"Soil Mix" method: I used Pro-Mix FPX in a 4-cell tray insert. Seeds sown per instructions on packet.



"Baggie" method: seeds sandwiched between moist paper towel or coffee filter paper and wrapped in clear plastic



"steamer" setup inside: water on bottom, steamer rack, and metal colander to hold the baggies.



THE INSTANT POT GERMINATION HACK (CONT'D)

More importantly, though, the author claims the interior temperature (inside the baggie) will be 86F and that adjusting the lid (leaving it more or less ajar) will decrease the interior temperature by 10F. Really? I had to test the Instant Pot hack.

Using a digital meat thermometer and a Corelle dinner plate left ajar about 1/4", I measured the seed temperature for both methods. Inside the baggie, the seed temperature was 30.5C/87F, slightly higher than the 86F mentioned in the article. In contrast, the soil mix method gave a seed temperature of 32.7C/91F (see table). And leaving the lid open, as expected, did reduce the seed temperature, by varying amounts, all less than 10F.

Results and benefits

For both methods, seeds germinated in four days, about what I expected. The high humidity level inside the pot kept the seeds from drying out even if the bag was not tightly closed. There was no need to spray the seeds, fiddle with humidity domes, or monitor the moisture level.

The Instant Pot not only takes up less space than a heat mat, it also makes twice-a-day checks very convenient.

This "hack" can help gardeners who want to start seeds year round, enthusiasts whose seed habit has outgrown their heat mat, and experts growing challenging species with complex or repeated cool / warm cycles. It's also an excellent way to achieve consistent temperatures for [germination tests](#).

On the "yogurt" setting, the appliance's maximum programmable runtime is 99 hours or about four days. So, compared to other DIY options, an Instant Pot is safe for this kind of off-label use.

If you enjoy the convenience of pressure cooked foods, you can guess the one obvious drawback: your Instant Pot is in use for days at a time. For me, the choice between terrific plants and fast meals is easy. I'll take the plants. 🌸

Seed Temperatures

Method	Temp.	Where taken
"baggie"	87F / 30.5C	inside the bag, touching the paper
"soil mix"	91F / 32.7C	just below the soil surface

Hacking the hack

- Instead of paper towels, use moistened paper coffee filters. They're thinner, stronger, and easier to manage when plucking sprouted seeds
- Use at least a cup of water—the water level should be as high as possible without touching the bottom of the container holding the bags.
- Use the lowest of the three *yogurt* settings: "less" not "normal" or "more".
- Be creative with your equipment. So long as the container is perforated and doesn't touch the water, you're good.
- Use one baggie per species.
- If you don't like the 'baggie' method, sow the regular way with a container and germination mix. Just make sure everything fits inside the Instant Pot.
- Check the seed temperature. Your setup may run warmer or cooler than expected, especially with changes to the lid gap.
- Check the seed temperature against the germination requirements for the species (details in the [March issue of Cross Pollination](#)). If the two are way off, consider using a different method for bottom heat. Hold seeds in reserve in case you need to try again.

OUTDOOR PLAYSCAPES FOR CHILDREN - PART TWO

by Janet Mackey, Halton Master Gardener

The rewards for re-thinking our outdoor spaces have been shown to have a positive impact on the emotional well-being of children as well as a lifelong commitment to sustainability. Children who have access to natural areas will develop empathy for other creatures, develop a sense of responsibility in caring for living things and an understanding that we all share Earth as our home. Read more about the benefits of outdoor play [HERE](#).

Take a look at your outdoor space and how children use it. Where do you see them linger? What types of play (i.e., active and quiet) do they get involved in? The following suggestions are meant to be considered in an existing space or new landscape. Allow your children to be involved in the design.

Invite them to draw maps, build the play area using blocks or walk-through the space to discuss it together.

Elements of Play Landscapes

1. Water

- make use of a bucket, wagon, or wheelbarrow to provide water access
- add cups, pitchers and jugs to move the water
- set a limit on how much water is used and remind children that water is a precious resource not to be wasted or dumped (e.g. 3 fill-ups of the wagon)
- create a garden water feature such as a [pondless waterfall](#), a [butterfly water station](#) or a [swale](#).

2. Sensory

- use different materials to cover paths or play surfaces, such as pea gravel, shredded bark mulch, moss, bare earth, stone, for them enjoy the textures or sounds as they walk and run. (See notes below)
- Include a variety of herbs, flowering shrubs and herbaceous plants that have pleasant aromas (See a list [HERE](#))



Building a shelter can be a great opportunity for children to feel part of nature. It gives them the opportunity to observe and reflect. Here are many other amazing things to do with children using sticks. (See [Super Sticks](#))

3. Tools and Loose Parts (see [Loose Parts Manual](#))

- cut down adult tools to the appropriate size so kids can really help with garden chores
- provide muffin pans for sorting and gathering, old pots for mixing, baskets of twigs or pinecones, buckets of pebbles or shells. (These can be used to decorate pathways, create temporary artwork, edging a garden or planter etc.)
- gather larger sticks to create shelter



Logs for sitting, stepping and gathering. A grouping of shrubs creates an amazing enclosure. Note ropes to the right act as a tight rope for balancing or dramatic play.

Continued on next page

OUTDOOR PLAYSCAPES - PART TWO (Cont'd)



Loose Parts are essential to purposeful outdoor play. See [Loose Parts Manual](#)

4. Large Muscles / Active Play

- Add child-sized pathways for children to move around the space - be sure some of it is concealed with shrubs or tall grass
- consider placing a series of pathways through your yard that are just the right size for children. This can provide opportunities for hiding, chasing and observation as they travel through the garden. Don't forget to consider adding a bridge!
- Consider changing the topography to create a high point or look-out or build a look-out

5. Quiet Space

- allow children to create their own shelters (See shelter ideas [HERE](#)), whether it's a simple rope tied between trees with a sheet or a natural shelter made up of fallen branches. These can be used for reflection, observation and a refuge from other busy activities.
- create a sitting/table area for children to gather, provide tools for exploration such as magnifiers, collection containers, arts, reading, snacking and planting. Place a base material such as wood decking, mulch, patio stone, or pea gravel to define the space.
- conceal sitting areas by planting a row of shrubs, or make use of twig fencing



Surface materials can include soft materials such as mulch, turf grass, sand or hard materials such as wood, stone or pre-cast concrete



A narrow stepping-stone path is a place to move more slowly and carefully. More info on pathways [HERE](#).

Two examples of pathway designs. Wide-open pathways are places where children can move quickly, in big groups.



Materials

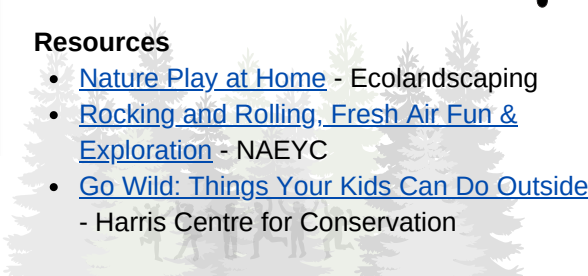
- Pathways
 - Aggregate/Stone - best for primary and secondary pathways, wheeled vehicles; higher initial cost and prep but more durability
 - Mulch - shredded bark - best for primary or secondary paths - not suitable for wheels, low cost but requires upkeep
 - Stepping stones - wide choice of materials (wood cookies, flagstone or precast stepping stones) best for secondary pathways - not suitable for wheeled vehicles ([More Details on Pathways](#))
- Gathering Areas
 - Turf grass, ground covers, wood decking, pea gravel, flagstone, mulch, patio stone, etc.

Have fun and let the play space change as the children grow or new interests evolve.



Resources

- [Nature Play at Home](#) - Ecolandscaping
- [Rocking and Rolling, Fresh Air Fun & Exploration](#) - NAEYC
- [Go Wild: Things Your Kids Can Do Outside](#) - Harris Centre for Conservation



GARDENING

Myths

INFORMATION

DISINFORMATION

MISINFORMATION

UNDERSTANDING FACT FROM FICTION

By Kirsten McCarthy, Halton Master Gardener

MYTH: When planting a new tree or shrub, add an amendment to the soil before you backfill the hole.

May signals the start of warmer gardening weather and the arrival of planting season for new trees, shrubs, and perennials. It is important to give your plant babies the best chance of survival by following up-to-date planting methods. Many gardeners believe that adding a soil amendment such as compost or organic matter to the planting hole will give the plant a boost of nutrients to help it grow. Good results are possible in the short term, but roots do not stay put. Eventually the roots reach the edge of the planting hole, beyond which the soil texture is very different. Usually the 'outside' soil is more compacted, has far less organic matter, and fewer nutrients. The confused roots will grow in a circle within the hole to avoid the native soil. The movement of water is also affected. Amended soil is more porous, so the finer-textured native soil may slowly wick away the water in the planting hole in drier weather leaving the roots to dry out.



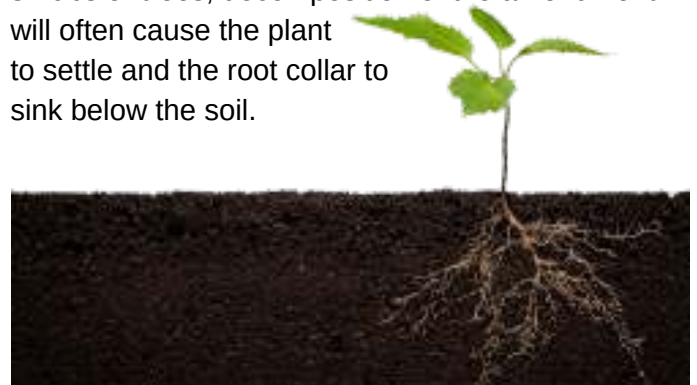
When planting trees and shrubs, use the **native soil** dug out of the planting hole to backfill.



When planting hole soil is amended, roots will circle the edge of the planting hole, much as they do in pots.

When it rains, the more porous amended soil will become saturated and hold water within the planting hole. The native soil acts like a dam because water moves more slowly through it. This "bathtub effect" keeps roots wet for long periods of time.

In the presence of moisture, air, and soil biota, the amendment may continue to decompose. Soil organisms compete with plant roots for minerals and may reduce plant growth. And in the case of large shrubs or trees, decomposition of the amendment will often cause the plant to settle and the root collar to sink below the soil.



Roots free to explore native soil

Instead of amending the planting hole, add compost or organic matter to the surface of your garden after you backfill the planting holes. In this way, your plants will not only benefit from the nutrients but also adapt to the native soil around the roots. ❁

Learn more here:

- [The Myth of Soil Amendments](#)
- [No need to amend the soil when planting new trees or perennials](#)



By Hariette Henry, Halton Master Gardener

Perennials grown in containers face more challenges than those grown in the ground. They are more exposed to freezing temperatures and drying winds in winter and suffer root constraints as a result of growing in pots. [Still, the benefits for people who lack space](#), proper light, proper soil conditions or who live in high rises are well worth the effort.

[When selecting a container for growing perennials](#), larger is better because perennial root systems need more space. Proper drainage is a must so if your container has no holes add them with a drill. Porous and semi-porous containers lose moisture more quickly and require more frequent watering than nonporous containers. Unglazed ceramic pots should not be used for plants that remain outside during the winter as they will absorb water, freeze and crack. Tall plants need heavier containers to avoid tipping. Heavier planters may benefit by being placed on a dolly with wheels to be easily moved around.

Soils in containers have poorer drainage characteristics due to their shallow depth and reduced capillary pull. This is compensated for by providing more porous planting mixtures. The potting “soils” used to grow container plants are really not soils at all. They are “soilless substrates” used specifically to grow container plants. The most common ingredients are perlite, pine bark, sand, sphagnum peat moss, and vermiculite—or combinations of these components. Frequently watering containers also results in the leaching of nutrients. These nutrients need to be replaced on a regular basis. [A regular fertilizer program is needed](#) to keep plants growing well all season long. Slow-release fertilizers can be used successfully as well as liquid fertilizers.

“Can perennials survive season after season in planters? If so, which perennials are best?”

Transplanting (or repotting) is sometimes necessary to increase the root system’s growing space, to replenish nutrients, improve aeration, and alleviate fertilizer salt buildup. Plants that are healthy and grown under optimal conditions should be repotted regularly using fresh potting mix. Repotting is best done in the early spring, before plants start actively growing.



*Slow-release type fertilizers and soil-less potting mixtures are ideal for container plants
University of Georgia Extension*

One of the biggest challenges for growing perennials in containers is how to overwinter them? The following are a few options to consider;

- Option #1- Leave the plant outside in its container. This should only be considered if the plant is hardy to two zones colder than you are in.
- Option #2- Plant the plant in the ground in its pot. This works well if you use a plain, plastic nursery pot inside a decorative container in the growing season and then you plant the plastic pot in the ground over the winter.
- Option #3- Move the perennial and its container into a slightly warmer (but not warm) area, such as a cold frame or unheated garage or shed.

Finally, the variety of perennials whether native or non-native that will do well in containers is pretty broad. Plants that are compact, mounding or clumping will grow better in containers than spreading ones. Larger perennials will not reach the size they would achieve if grown in the ground. A container can hold more than one type of plant if all the plants have similar requirements for light, water, and nutrients ✿

SPONGY MOTH CATERPILLAR DEFENCE

by Claudette Sims, Halton Master Gardener

Spongy moth (*Lymantria dispar*) caterpillars can be quite destructive when they start feeding on tree leaves during the summer. But there are two easy methods to reduce their numbers and minimize damage without resorting to pesticides: trap bands and slippery or barrier bands. Here's how they work.

Trap Banding

Spongy moth caterpillars feed on leaves during the day and then crawl back down the trunk to hide from predators at night. You can take advantage of this movement by setting up a simple trap. Cut a strip of burlap 30-45 cm (12-18 in) wide and long enough to go around the tree with a bit of overlap. Tie a string around the middle of the band to keep it in place and then fold the top over. When the caterpillars travel up the trunk to feed at night, many will become trapped between the two layers of burlap. Check the burlap each day and dispose of caterpillars by squishing or placing them in a pail of soapy water. The spines of spongy moths can irritate skin, so wear gloves to protect yourself.



Drop the top half of the burlap over the twine and over the bottom half of the burlap to create a "skirt".

[University of Wisconsin Extension](#)



Trapping allows you to reduce caterpillar numbers below damaging thresholds without resorting to pesticides.

Click photo to enlarge.

[University of Wisconsin Extension](#)



Ensure the **sticky part of the tape is against the bark**. Knock any caterpillars into a bucket of soapy water.

[Michigan State University](#)

Slippery Barrier Bands

The slippery barrier bands are meant to stop any caterpillars which got through your burlap trap band. It may also stop them from migrating to other trees or climbing back up if they fall-yes, apparently this happens to them. You'll need some duct tape and a bit of petroleum jelly.

Choose a spot above your burlap band to catch those crafty caterpillars that made it past the first hurdle. Start by wrapping one band of duct tape around your tree. The **sticky side** should be **against the bark**—you don't want to find unsuspecting bees, butterflies or birds caught up in a sticky mess. Press the tape right into all the crevices in the bark so that the caterpillars can't sneak behind it and travel up the tree to dine on your tree leaves. Add two more bands of duct tape to make the barrier **wider**. Overlap the ends to make one unbroken slippery barrier. You can add a **narrow and very light** strip of petroleum jelly to the middle of the band of duct tape to further deter caterpillars. Again, don't add too much for fear of trapping other non-target critters.

Further Reading



[Making a Burlap Barrier Band Trap](#)

[Using Bands to Protect Shade Trees from Spongy Moth](#)

GARDEN INSPIRATION

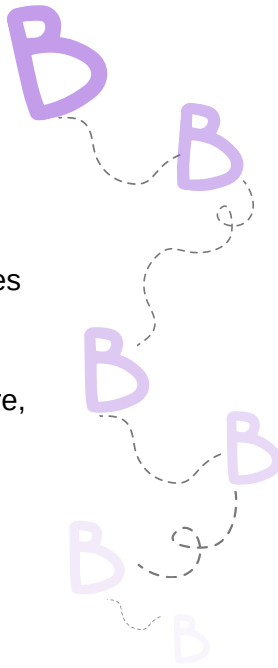
THE LAST BEE

After the last ee
had uzzed its last uzz,

the irds and the utterflies
did what they could.

ut soon the fields lay are,
few flowers were left,

nature was roken,
and the planet ereft.



[Brian Billston's Poetry Laboetry](#)

GARDENING EXERCISE

The Workout Tools



Photo Facebook: My Little Garden Place

The Program



How to Add Gardening to Your Exercise Program

Gardening may not come to mind when you think of a workout, but it should because gardening can deliver

[How to Add Gardening to your Exercise Program](#)



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What's Growing On?



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[Bloom Watch](#)

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- Interested in attending a meeting? Contact us at: [Halton Master Gardeners](#)
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Check our [calendar](#) for events



Historic Kitchen Garden at Dundurn Castle

May 20 to October 8

[Learn more here](#)



Bees

Pollinator Gardens

Children and Climate Change



[View videos here](#)

What's Growing On?



Plant Sales



[Learn more here](#)



Saturday, May 13th, 2023

[Learn more here](#)

Oakville Horticultural Society

Plant Sale



Saturday, May 20th, 2023
8:30 - 11:00 am

[Learn more here](#)



[Learn more here](#)

About Our Newsletter

Cross Pollination is published monthly from February to December and is written and prepared by our dedicated volunteers. Halton Master Gardeners are experienced gardeners who have studied horticulture extensively and continue to upgrade their skills through technical training. We strive to provide science-based, sustainable gardening information to the general public. The information in our newsletter has been verified by our volunteers to the best of our abilities, but given the scope of horticulture and science some concepts may not reflect current knowledge.

Your [donations](#) support our work!

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