CROSS POLLINATION

Halton Master Gardeners Monthly Newsletter JUNE 2022 | VOL 15 ISSUE 5

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By Janet Mackey, Halton Master Gardener

We really do have to work on the common names of some of our native plants. *Chokeberry—really?* Yes, the fruit is 'quite astringent' if eaten early in the season and even the birds won't touch it until late winter. But *Aronia* berries also have high levels of antioxidants and the fruit is used in both small and large-scale fruit products, e.g., jellies and winemaking. It's also easily confused with Chokecherry—a subtle but important difference. Chokecherry, also astringent, belongs to the *Prunus* genus (cherry, plums, etc.) and Chokeberry is within the genus *Aronia*. Both plants are in the *Rosacea*, *or rose* family. Using the botanical name, *Aronia melanocarpa*, makes it clearer and helps distinguish it from other similarly named plants including another sadly named plant—red chokeberry, *Aronia arbutifolia*.

I planted my *A. melanocarpa* in part shade in 2021—they will also tolerate full sun along with moist or somewhat dry conditions. To say I'm thrilled is an understatement! Check out the photo above. Have you ever seen more gorgeous flowers? Small native bees were enjoying the sweet nectar and nutritious pollen as soon as the flowers opened in late May. The leaves are glossy dark green through summer turning a bright orange-red in fall. It will need some annual pruning since it has a tendency to send up suckers, but its general form is upright and mounding, growing to a height of 5-8' (1.5-2.5m). I look forward to the birds visiting in mid-winter and I just might collect some of the fruit myself to make something delicious— maybe jelly or even wine! This plant is a feast for birds and humans alike—let's call it Cherry Delight or Wine & Dine shrub!

Photo: Janet Mackey

JUNE GARDEN 'TO-DO' LIST

by Claudette Sims, Halton Master Gardener

- Perennials Stake and support tall plants, e.g. <u>ironweed</u>, peonies, delphiniums.
- Lawn Feed soil with fine compost or organic fertilizer. Mow high (3" / 7.5 cm). Pull weeds on a weekly basis. For more information on healthy lawns see this link.
- Roses Prune laterals of climbing roses to 6-8" / 16-20 cm after blooming to keep them flowering. Here's a great video on how to do it!
- Prune spring-flowering shrubs after they have bloomed as necessary. Overgrown shrubs may benefit from rejuvenation pruning.
- Veggies Stake or cage vegetables like tomatoes and beans as needed. Mound potatoes to maximize production and protect tubers from sun exposure.
- Direct-sow warm season veggies such as corn, beans, cukes and squash, and flowering annuals such as nasturtiums and cosmos.
- Compost Use compost to mulch garden beds and trees. Turn your compost pile and water if dry. Read more about composting at this link.
- Water newly planted trees and plants regularly; water lawn and existing trees less frequently but deeply. Potted plants will need more frequent watering. Use soaker hoses for water wise gardening.
- House plants Gradually bring outside for a 'holiday' to a shady protected area, then move to suitable sun or shade location as needed.

Watch for these invasive plants in your garden this spring. The priority is to remove flowers so they don't

go to seed.



Star of Bethlehem

Garlic mustard, Star of Bethlehem & Epipactis helleborine. Goutweed, Periwinkle & Common Buckthorn.

- Aphids plant dill, fennel, parsley, wild bergamot, bachelor's buttons or alyssum near problem plants to attract <a href="https://www.hover.nlm.near.nlm.ne
- Squash bugs all you need is duct tape and this <u>cool video!</u>
- Japanese Beetles appear in June. Take necessary steps for control: hand pick, knock into a bucket of soapy water, or use a hand vacuum to suck them up!
- Spongy Moth (LDD Moth) Wrap tree trunks with burlap bands to trap the older LDD moth caterpillar as it treks from the canopy to hiding places on the ground. Remove trapped caterpillars daily. Watch this cool video to see how it's done!
- Remember that not all 'bugs' are pests. Most bugs eat other bugs and birds need insects to feed their young. Many plants can survive minor infestations of insects, so avoid reaching for sprays which kill the beneficial insects that keep your garden in balance.

Forget the <u>invasive Forget-me-nots!</u>

Why plant invasive plants when there are so many beautiful alternatives!

Brunnera flowers & Leaves



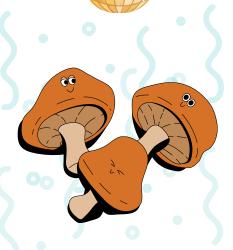




LICHEN THE 'FUN-GUYS': DRYAD'S SADDLE

By Kathleen Terry, Halton Master Gardener





Dryad's Saddle: Polyporus squamosus a.k.a. Cerioporus squamosus

Here is *Polyporus squamosus* (Polyporus referring to pores, and squamosus meaning scaly) or, as the Oak tree nymphs know it: Dryad's Saddle.

This beautiful polypore fungi can grow on living trees, and when it does it has the appearance of a saddle, as does this one seen on a tree at Sovereign House in Bronte. It can also grow on deadfall, and from soil where tree roots are just below the surface. When seen growing up from the earth it appears funnel shaped.

Coprinus comatus (Shaggy Mane) is one of the most common and easily recognized mushrooms in our region. Photograph: Canva



Few living growing things are given such fantastical names and are as infused with fantasy and lore as are fungi. Remember Alice's mushroom? Faerie Rings, Dead Man's Fingers, Earth Star, Turkey Tail or this Dryad's Saddle to name a few.

Ancient Greeks thought mushrooms were the seeds placed on lightning bolts by Zeus. Perhaps these fantastical explanations are because fungi seem to magically appear out of thin air.

Apart from making fanciful explanations for them, man has been making use of fungi for thousands of years. When Otzi the Iceman (c.3350 BC) was discovered in 1991, it was found that he carried two types of fungi: Birch Polypore (*Fomitopsis betulina*) can be used to remove parasites, or when ground into a paste and mixed with water can be used to seal a wound; and Tinder Polypore (*Fomes fomentarius*) which, when boiled and pounded, makes an excellent fire starter.



Earth Star: a fruiting Basidiomycota, (terribly jumbled taxonomy). Photographed in the author's back yard.

LICHEN THE FUN-GUYS (CONT'D)

Fungi are ubiquitous. Magic Mushrooms (liberty caps, *Psilocybe semilanceata*), the hallucinogenic "magic mushroom", has appeared on a coin and on stamps, but its worldwide depictions go back even farther. Archeologists have dated an Australian psychedelic mushroom illustration to 10,000 BC, and rock paintings in Spain to 4,000 BC. Mushrooms are frequently mentioned, and sculpted, in Aztec, Mayan, and Toltec religious stories.



Very interesting you say, but what does all this have to do with you and your garden?

The study of fungi is Mycology which helps us understand the relationships between man and yeast (sorry couldn't resist).

Roots, stems, leaves, flowers, and sometimes fruit or berries are elements of the plants we gardeners nurture and admire, but what of other growing things? Fungi, for instance, in their many forms play an integral role in the balance of ecosystems. Kingdom Fungi is a diverse group of about 100,000 species that includes multicellular mushrooms, molds, mildews, bracket fungi, and single cell yeasts. They colonize most habitats on earth, and can even be found in tundra, though they are most often found in forested, damp, shady areas.



Dead Man's Fingers: Xylaria polymorpha, a saprobic fungus in the author's garden.

All fungi are heterotrophs which, unlike plants, means that they must get their sustenance from other living and non-living things. They can be saprophytes which live on dead or decaying matter, or parasites which live on, or in, another organism.

The saprophytes exude a variety of exoenzymes that allow them to break down large molecules of decaying matter. This metabolic action results in the release of phosphorus and nitrogen which, as we know, are two of the macronutrients needed by plant life. The mushrooms are the fruiting body of fungi. Aha! Finding mushrooms in your garden can be a good thing! Parasitic fungi can be mutualistic, meaning that they can, and do, have a bartering agreement with their living hosts. To be specific, they have a symbiotic relationship. One type of mutualistic fungi is mycorrhizae.

LICHEN THE 'FUN-GUYS' (CONT'D)

These are tiny microscopic threads called hyphae living amongst, and in, plant roots and even connecting plants to each other. These mycorrhizae collect phosphate, nitrogen and H2O and exchange them for excess sugars produced by the plants' photosynthesis. Studies have shown that a healthy network of mycorrhizae can substantially reduce plant stress.

Either way fungi are fanciful, fascinating, and fortuitous. In fact, they are an essential element of our ecosystem as they go about their business of decomposing and recycling organic matter and providing essential nutrients to the plants we seek to nurture. Acknowledging their importance in our gardens is a good reason to think about letting nature nurture, rather than pulling up annuals, "double digging", and begrudging mushrooms.*



Turkey Tail: Polisporus versicolour, a.k.a. Trametes versicolour, and Coriolus versicolour. Photographed in Lion's Valley.

Photographs

Fungi photographed by Kathleen Terry in her garden with the exception of Shaggy Mane (Canva)

References and further reading:

- <u>Fungi Habitat, Decomposition, and Recycling</u>
- Strange but True: The Largest Organism on Earth Is a Fungus
- Fungi, Folklore, and Fairyland
- How do mycorrhizae work?
- Otzi the Iceman: The Frozen Mummy's Mushrooms
- The History of Psilocybin: Magic Mushroom Use Through the Ages



CANADIAN COALITION FOR INVASIVE PLANT REGULATION

by Cathy Kavassalis & Claudette Sims, Halton Master Gardeners

Canada is in urgent need of a nationally coordinated plan to reduce the spread of invasive plant species, according to the newly created Canadian Coalition for Invasive Plant Regulation (CCIPR). Our legislative framework is out-of-date and fragmented, and responsibility for who controls invasive plants is unclear.

Improved federal, provincial and territorial legislation and regulations are required to limit the spread of both terrestrial and aquatic invasive plants.

Specifically, CCIPR is calling for the following measures:

- Effective pre- and post-border invasive species risk assessments;
- Bans on the sale and movement of high-risk invasive plant species;
- Labelling to identify and educate the public about lower-risk invasive plants;
- A verifiable industry-wide Code of Conduct; and
- Public education including alternatives to invasive plants.

Each year, hundreds of millions of dollars are spent in Canada to control invasive plant species, namely plants that arrived from outside of North America. Many of these invasive plants are sold to the public by the horticultural industry, as well as by the pet and aquarium trades. Examples include: periwinkle (Vinca sp.), goutweed (Aegopodium podagraria), tamarisk (Tamarix ramosissima), yellow flag iris (Iris pseudacorus), parrot's feather (Myriophyllum aquaticum) and Japanese barberry (Berberis thunbergii). All are considered invasive in some parts of Canada. Once these plants escape into natural areas, parks and forests, they cause ecological, social, and / or economic harm.





Gardeners are often shocked when they discover that

plants they bought at a nursery are invasive.

Master Gardener Catherine Kavassalis



"Gardeners are often shocked when they discover that plants they bought at a nursery are invasive," says Master Gardener Catherine Kavassalis, a well-respected environmentalist and plant expert who helped to launch CCIPR. "Invasive plants represent a small percentage of all plants sold, but they do enormous ecological damage. They really need to be regulated or restricted to limit their spread and impact."

A grassroots coalition of conservationists, ecologists, invasive plant experts and motivated home gardeners from across Canada, CCIPR wants to reduce the proliferation of invasive plant species. They are seeking the public's support and help to call for change.

For further information, please contact: info@ccipr.ca

Website: ccipr.ca

MEMORY AIDS FOR GARDENERS

By Bev Wagar, Halton Master Gardener

Horticulture! It sweeps you off your feet, showers you with affection, and sheet-mulches your back yard. But when it moves in—that's when you realize its suitcases are stuffed with strange nouns and adjectives.

Horticulture packs a lot of language!

Oh the dictionary writers would have us believe it's the "art of cultivating plants", often with a patina of science or at least a good dollop of seriousness. But the truth is that horticulture's wordy baggage can suck the joy out of the simple act of mucking about in the soil.

All that Latin! All those syllables!

Before you throw down your "Complete Gardener's Dictionary" (Barbara Ellis) or "Botany for Gardeners" (Brian Capon), do try using memory aids or, if you like irony, "mnemonics." A mnemonic (nuh·mo·nuhk) is a learning technique that helps us retain or remember information. These techniques are based on the observation that, compared to the usual abstract or impersonal methods, the human mind more easily remembers spatial, personal, surprising, physical, sexual, humorous, or otherwise "relatable" information.

Here are a few to get you started.

Phloem. This is an easy one. PhlOem flows. Stuff, in general, flows downwards. Phloem tissue enables the transfer of energy from the top of the tree down to the roots. Unlike trickle-down economics, the good stuff literally *phloems* down.

Xylem. Xylem are the specialized cells in tree trunks that move water from the root system to the leaves. Quite coincidentally, *xylem* rhymes with *asylum*. So imagine you're in an asylum—some days it's not that difficult. It's an old-fashioned asylum with a tall fence, a guard named "Turkle", and a musty library full of horticultural dictionaries and pronunciation guides. You'll need to climb *up* that fence to get out. Xylem moves up. So climb that big fence up out of the *as-xylem*!



Glabrous. Something glabrous is smooth, with no hairs of any kind, like lilac leaves, or your legs for about two minutes after getting them waxed. Sorry guys—here's a more inclusive metaphor: Glabrous is glamorous, like Joan Crawford or Lana Turner. Did these glamorous women have fuzzy upper lips? Wierd hairs on their chin? No they did not—they were glabrous.



Rugose. Wrinkly. The leaves on 'Fireworks' goldenrod (Solidago rugosa) are rugose. So are the leaves of the mint (genus Mentha) that escaped its container two years ago. Now it's got an armed bunker in your back yard (see "stolon" below) and demands your unconditional surrender. You rue the day you planted mint—now you rue-those rue-gose leaves.

MEMORY AIDS FOR GARDENERS (CONT'D)

Stamen. The male fertilizing organ of a flower, typically consisting of a pollen-containing anther and a filament. A stamen often wears bright yellow lipstick and powders his nose, but he'll always stay (a) man.

Pistil. These are the female organs of a flower, comprising the stigma, style, and ovary. *Pistil* rhymes with *Crystal*—your niece the wannabe model who took 583 selfies last year. Crystal's female organs are hard to forget once they've been aimed at you, like pistols, er, *pistils*.

Dioecious. This word describes plants that have the male and female flowers on different plants. You need two of them, a male and a female, for pollination and proper fruit set or viable seeds. Holly (*Ilex*) and Spicebush (Lindera) are dioecious shrubs. It's pronounced "dah-ee-shuhs" as in "Dice! Shush!", a phrase often heard at casinos and back-room poker games. Just remember that you need two dice—a male and a female. Sometimes they're hard to tell apart. Look for the one smoking a cigar. That's the female.

Monoecious. A monoecious plant has both the male and female reproductive organs (flowers or cones) on the same individual. Both sexes are on one plant. The non-intuitive pronunciation ("mah·nee·shuhs") reminds us of muh-nee (money) which, despite much imaginative googling and two glasses of wine, resists any association with plant reproduction. So look at the spelling instead: "mono" = "one" as in monolith, monopoly, monorail, monologue, monochrome, monogamy, monotony...

Stolon. A stolON is a type of plant root that travels ON top of the soil. Sometimes called "runners", stolons create new daughter plants when the bud at an apex touches the soil. Examples of stoloniferous plants include: creeping charlie, ajuga, strawberries, and many other plants sometimes used to cover the ground we don't want to look at.

You need a pair...



... of "dah-eece"

... of "dah-ee-shush" plants

Rhizome. A rhizome's home is in the loam.
Rhizomes are modified stems that travel horizontally, underground, sending up shoots along their length. Many pernicious weeds spread by rhizomes: quack grass, vinca, lily-of-the valley, that stuff your mother-in-law gave you in 1986. One the worst weeds ever invented, Japanese knotweed, is rhizomatous. Plants with rhizomes proliferate on streets with gullible and generous gardeners. Bettina, for example, used to tell her neighbours "it's not invasive in my garden" and now no one talks to her.

The horticulture world writhes with pesky nouns and adjectives. Cranky and persnickety, they like to corner you at parties and roll their eyeballs when you forget their names. Summon your courage! Crank up your imagination and devise some mnemonic devices—soon you'll be ready to face those binomials with confidence and flair. Give it a try!



By Hariette Henry, Halton Master Gardener

I believe you have two tasks. The first would be to eliminate the grass and the second would be to re-condition the area below the stump to make it a proper environment for new plants.

I would start by eliminating the grass since you might be waiting a little while for the stump to be dealt with. Using the lasagna or sheet mulching method of removing grass is probably the best way to go. It is a back-saving strategy that kills weeds and grass by blocking out sunlight, allowing everything to die and decompose, without you having to lift a shovel. The following are the steps that you need to take to achieve this. It may take four to five months and it is often best accomplished over the winter.

- First start by running the mower over the area you want to transform. Cutting the grass down as close to the soil as possible will make the turf easier to cover. You may want to remove a narrow 3" strip of sod and soil if your bed will be adjacent to a hard surface so that the mulch doesn't shift over time
- Next you can begin your "brown" layer by covering the lawn with 5-8 sheets of newspaper. Overlap the edges by 6" so as not to allow light and air to get through. Thoroughly water the area as you don't want the newspaper to blow away. Cardboard can also be used, although it may take a bit longer to break down.

I would like to create a small garden bed in a sunny area of my front yard which previously had a large tree and grass. The tree, an ash, succumbed to emerald ash borer. What remains is a very large stump which will be ground down at some point by the municipality. How should I proceed with preparing a garden bed for planting?



- Next cover the paper with 4-6" of topsoil mixed with compost, or just compost. This is your "green" layer. If you have other organic soil amendments like coffee grounds, grass clippings or shredded leaves, you can mix those in also. Do not use meat, dairy, fats or bone as this will attract scavengers.
- Finally cover the whole area with 3-4" of organic mulch. Wood chips will do fine as will any other organic mulch. By spring your lasagna layers will slowly decompose into rich, healthy soil.



(cont'd)

When you are ready to deal with the stump, ask whoever is doing the work to grind down at least 12" and eliminate, as much as possible, the shavings and chips from the surrounding area.

Fill the void with soil mixed with compost or well rotted manure, then add a 1-2" layer of compost or manure on top of the soil before you finish with organic mulch. The manure will provide nutrients for the plants directly and will also provide a buffer between the plant's roots and the woody materials of the stump and mulch.

This should mitigate the risk of what's known as nitrogen drawdown: the loss of nitrogen to plants in the presence of high amounts of carbon, resulting in slower growth and in some cases, deficiencies. For more information on nitrogen drawdown visit the links below.

Note that if you are planning on planting a simple perennial bed you should be fine. If you are thinking of planting a decorative small tree or shrubs you may want to wait longer for more decomposition to occur. You can also retain the mulch from the ground out stump to mulch other areas of your yard.

Once the above tasks are completed, you should be ready to plant.

Take a Closer Look!

The Lasagna Method – Hennepin County

Master Gardeners

HMG, Re-Imagining your Landscape –

Resources

HMG, Mulching Matters

Using Mulch – Combatting Nitrogen

Drawdown

What is and What Causes Nitrogen

Drawdown?

MONARCH AWARDS

By Claudette Sims, Halton Master Gardener

Each year the Monarch Awards program recognizes Hamilton gardeners who want their gardens to not only *look* good but also *do* good.



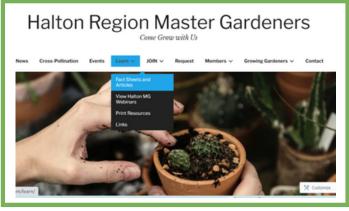
Do you:

- have lots of diversity in your garden, especially with native plants?
- · manage rainfall on your property?
- take care of your soil provide for insects and wildlife?
- choose hardscape features with the environment in mind?
- enjoy your role as a neighbourhood beacon for ecological gardening?

Consider applying for a Monarch award!



What's Growing On?



Looking for reliable garden information? Check our extensive list of factsheets & articles under the LEARN tab of our website.

We're still answering your garden questions!



Send us an email. It's what we do best!

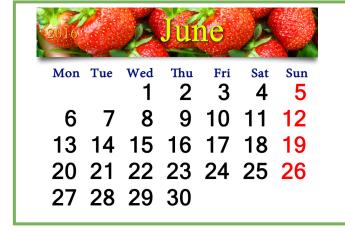
- Do you have a passion for gardening and sharing your knowledge? Learn more about joining us.
- Interested in attending a meeting? Contact us at: Halton Master Gardeners





After being absent for two years due to the pandemic, Garden Days, a national celebration of gardens and gardening will be held between June 11 and 19, during the Year of the Garden 2022.

Learn more here



Check our <u>Calendar of Events</u>! for more information.

In-Person Advice Clinics are Back!

Halton Master Gardeners will be answering your garden questions in person!

Ottawa Street Farmers Market

10:00 am to 1:00 pm
Saturdays throughout the summer
Burlington Farmers Market

9 am to noon

- Wednesday June 15
- Saturday June 18



Halton MGs Hariette and Bev at the Ottawa Street Market

What's Growing On?

Guelph Horticultural Society

Annual Garden Tour Sunday, June 12 1:00 PM- 5:30 PM



Learn more here



Register here



Learn more here

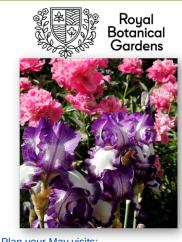


Paris Horticultural Society Garden Tour Saturday, June 4 10:00 am - 4: 00 pm

Learn more here



Halton MGs will be there! Learn more here



Plan your May visits:

- Laking Garden peonies and iris
- Roses in bloom at Hendrie Park
- Perennials at the Rock Garden

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 our 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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