Cross Pollination

Newsletter of the Halton Master Gardeners

July Garden To Do List

- **Blooming perennials -** Cut back early blooming perennials, e.g. hardy geraniums, delphiniums, catmint, after the first flush of flowers to encourage new growth and blooms. Shorten stems of fall flowering plants like asters, mums, Joe-Pye weed and goldenrod to keep them sturdy and compact. Trim just above a set of leaves. Deadhead annuals by pinching or cutting with scissors to encourage blooming. More details here.
- **Common Milkweed -** Trim back 2/3 of your milkweed (Asclepias syriaca) plant stems the 2nd or 3rd week of July to stimulate new, young growth which is more attractive to monarchs. Read this article for details.
- **Lilacs** – Remove the old flower clusters as soon after flowering as possible. Prune just above the two new shoots that angle out from the stem that ended with the old flowers.
- **Wisteria -** Throughout the summer, remove the whippy side-shoots from the main branch framework to about 20 cm from their base (about five leaves from the main stem). Wisteria didn't bloom? Read our wisteria factsheet for help.
- **Compost**- Keep adding a mix of 'browns' and 'greens' to your compost pile.
- **Lawn** – Mow high (3"/7.5 cm) to shade out weeds. Leave the clippings on the grass to return nutrients & water to the soil. WATER LESS and let lawn go dormant in dry hot spells (turn brown). Water dormant grass when: the blades don't spring back upright when you walk on it & when the blades fold to show their lighter blueish green underside. More info here.
- **Veggies -** Water during dry or hot weather to avoid stressing plants. Do not over fertilize tomatoes as it can lead to blossom end rot
- **Water** – spring planted trees/shrubs regularly, avoiding the hottest part of the day. Water existing trees less frequently, but deeply. Water at the base of plants, not on foliage, or use soaker hoses. Stop watering garlic 2-3 weeks before harvest. Harvest when tops turn brown (about mid-July)
- **Invasive plants** – Inspect your garden for invasive plants that may have self seeded such as garlic mustard, white mulberry, common buckthorn & Norway maple.
- **Weeds** – Target removal of seedheads to reduce the seedbank for next year.

Black Swallowtail caterpillar on dill
Photo: C. Sims

- **Pests** – Identify the 'pest' before taking action. That pest may be a butterfly caterpillar or a beneficial insect which keeps your garden in balance! For problem pests, start with a strong spray from your garden hose to knock them off.
- **Japanese Beetles/Gypsy Moth/Aphids/Squash beetles? -** Check our June newsletter for suggestions.
- **Enjoy & Assess-** Take a minute to sit and enjoy your garden. Assess its appearance and function. Are most plants mainly decorative exotics? Which native plants that are both decorative & have an ecological purpose could you add to your garden?

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July 2020
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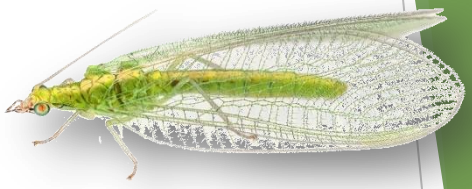
Spotlight on Beneficial Insects

Create the Right Habitat & They Will Come!

Hariette Henry – Halton Master Gardener

Common Green Lacewing (Chrysoperla carnea)

Green Lacewing, (Chrysoperla carnea) is a small fragile insect found in all provinces and territories of Canada except Nunavut. It is in the family Chrysopidae of the order Neuroptera, or net-winged insects. Approximately 25 species of lacewing can be found in Canada with Chrysoperla carnea (common green) and Chrysopa oculata (goldeneye) being the most common.



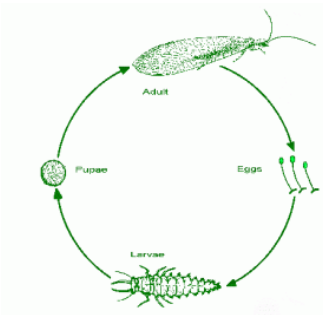
Adult Lacewing, 4 delicate membranous wings with lace-like appearance.
Image: WSU, Extension

Adult Lacewing- golden eyes, green body, dark lines on side of head.
Image: J. Berger, bugwood.org

Green lacewing is typically ¾" long, has long netlike wings, a slender pale green body, and golden eyes. It can be identified by the dark straight line on the side of the head, which runs from the eye to the mouth. Its body is green with a wide pale stripe along the top. Eggs are green to grey, oval-shaped, and attached to the end of a ¼" hair-like filament found on the underside of plant leaves. Larvae have flattened "alligator" shaped bodies, with long, forceps-like, curved tubular mandibles, and have colouration ranging from grey to brown. The pupa is formed inside a spherical silken cocoon that is attached to vegetation.

Females often lay their eggs close to future sources of prey, and the unusual filaments to which the eggs are attached, keep young larvae from eating each other after they hatch! Larvae grow through three stages (instars) for 2 to 3 weeks before each spins a spherical white silken cocoon. The adult emerges in about 5 days.

Lacewing egg, suspended from 1/4" hair-like filament
Image: David Cappaert, MSU Extension.
Life cycle (left) – Image - BeneficialInsectory



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Beneficial Insects - Create the Right Habitat & They Will Come!

"Aphid Lions "

Adult green lacewings feed on nectar, pollen and honeydew, aiding in pollination. The larvae on the other hand, are extremely predacious and voracious. They impale their prey and inject them with an enzyme that dissolves the body contents and then they use their jaws to suck out the digested material leaving an empty shell behind. Green lacewing larvae are frequently referred to as aphid lions and can consume up to 150 aphids per week. In addition to aphids, preferred foods are other soft bodied insects such as mealy bugs, spider mites, leafhopper nymphs, moth eggs, scale, thrips and whiteflies. Cannibalism is also very common.

Lacewing larva - A.K.A. Aphid Lion
Note curve-shaped tubular mandibles used for sucking prey's internal organs
Image: bugguide.net

Green Lacewing eggs for sale on Amazon.ca

It's clear that lacewings are extremely effective, beneficial insects. In order for these insects to survive they require food, hosts and shelter. **Native plants have closer affinities with native insects and therefore, more adequately provide these resources**.

Lacewings are available for purchase from commercial suppliers, however the benefits of introducing beneficials in this manner can be limited and short-lived. Once released the insects may disperse and rapidly leave your back yard in spite of the nectar resources and prey. Generally, it is more effective and sustainable to create a garden habitat that will be colonized by beneficials naturally

Additional Reading

- Washington State University Extension, Beneficial Arthropods
- Cornell University, College of Agriculture & Life Sciences
- Bug Guide -Lacewings

Watch this Amazing Video!
The Lacewing
•Narrated by David Attenborough

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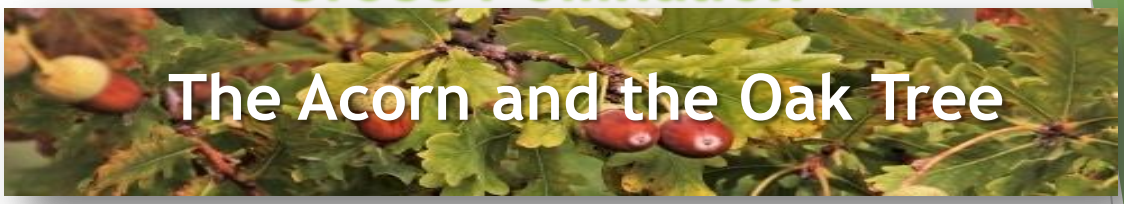


The Acorn and the Oak Tree

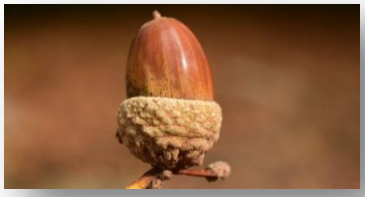
Allyn Walsh – Halton Master Gardener

Are we really planting oak trees for our grandchildren or do we get to enjoy them too?
Why should I plant an oak tree?
What kind of oak tree is that, anyway?

Are oak trees not the most romantic of all trees? Throughout literature they are symbols of strength, resilience and endurance. But that very image of size and strength sometimes discourages people from planting them, believing that they grow too slowly to provide enjoyment anytime soon. But the fact is that acorns germinate quite readily and the resulting sapling grows reasonably quickly. For those who want to support native wildlife, particularly birds, the oak is a "keystone plant". Dr. Doug Tallamy explains how to get started with oak trees: planting oaks

The best time to plant an oak was 20 years ago. The second best time is now! *Image from Pixabay*

There are huge benefits to growing native oak trees. They support at least 275 species of the caterpillars so important for our bird species. Many beneficial insect species are hosted by oak trees and gleaning birds such as warblers and tanagers depend on them. Acorns, fruit of the oak, are a key winter food of many overwintering birds including blue jays and woodpeckers. These trees also provide excellent nesting locations as well as shelter in all seasons. Just take a look at this list of birds supported by oaks!



"The creation of a thousand forests is in one acorn" … Ralph Waldo Emerson
Image from Pixabay

We can agree – oak trees are wonderful! But it can be a bit confusing to know which type to plant, and to identify what we may already have growing near us. A beginner's guide to identifying common native oaks starts with identifying the two main types: white oaks and red oaks. Confusingly, each of these groups also has a species bearing that name. The following is a quick and dirty guide to identifying native oaks in southern Ontario
All photos from *Missouri Botanical Garden* **(White Oak Types) and** The Ontario Tree Atlas

Did you know? The Ontario Tree Atlas is a helpful guide to our native trees!

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The Acorn and the Oak Tree continued

White Oak Types

***Quercus alba* (white oak)**

This is a large majestic tree, growing up to 20-30 metres in height and breadth in cultivation – larger in the wild. Slow growing, this tree is not planted for a "quick fix" but although large it is not uncommonly found as a street tree. It tolerates poor rocky or clay soil and is drought resistant once established. Because of its extensive root system, it is best to avoid siting it near septic tanks or even sidewalks. As with other oaks, it is monoecious with separate male and female catkins on the same tree. Acorns of course are the fruit of oak trees – for *Quercus alba* they are up to 2 cm long with warty caps.

- Deeply lobed leaves are rounded at the ends
- Bark is a light grey and scaly in appearance
- Acorns have warty caps with smooth nuts

***Quercus macrocarpa* (burr oak)**

This tree is of the white oak type, generally a little smaller than *Quercus alba* at 15-30 metres tall. It tolerates a variety of moisture and shade conditions and it grows well in cities. Care should be taken because of its deep root system. This is considered to be the most common oak found in our region.

- Large leaves,15 to 25 cm long, shiny green on top, and pale and hairy underneath
- Bark is thick, brown and deeply furrowed in maturity
- Acorns are 1.5 to 3 cm with a deep cup covering 2/3 of the acorn. Cup has a bristle fringe around the upper edge.

Bark of burr oak
Quercus macrocarpa
Photo Cdn. Tree Tours.org

***Quercus bicolor* (swamp white oak)**

As expected from its common name, this oak prefers low lying or moist soils. It is not drought tolerant and prefers heavy soil. While it is considered uncommon in Ontario, mature specimens are in the Royal Botanical Gardens. Growing up to 22 metres in height, its distinctive leaves are dark green with fuzzy silver undersides. They taper to a wedge-shaped base.

- Dark green leaves with pale undersides, 5-10 rounded lobes or blunt teeth along the margins.
- Bark is light grey with a peeling appearance.
- Acorns have a long stalk, and the cap has recurved and pointed scales.

Quercus alba

Quercus macrocarpa

Quercus bicolor

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The Acorn and the Oak Tree continued

Red Oak Types

***Quercus rubra* (red oak)**

The leaves of *Quercus rubra* tend to be larger than those of *Quercus alba*, running from 10-20 cm in length. The lobes are sharp and pointed, sometimes with bristles. The acorns are also a little larger, 2-3 cm in length and take two years to mature. For that reason, different sized acorns can be seen on these and other red oak trees.

- Deeply lobed leaves with pointed, sharp, or bristly ends, often demonstrating marcescence (not dropping in winter)
- Bark is dark grey, with furrows developing in maturity
- Acorns have flattened caps, may have striped nuts

Acorns of pin oak
Quercus palustris
https://www.ontario.ca/page/pin-oak

***Quercus palustris* (pin oak)**

Pin oaks are of the red oak type and are notable for their preference for acidic and moist, or even wet soil (*palustris* derives from the Latin word for swamp). Acorns are small and rounded (up to 1 cm in size) with small shallow caps and take 2 years to mature. As Quercus palustris is a smaller oak (up to 20 m) and has a pleasing symmetrical shape, it is a popular street and shade tree. Leaves have fewer lobes than most oaks, generally 5-7. In the wild, the lower branches may break off, leaving the tree with a "pin-like" silhouette. This is not usually seen in cultivation.

- Leaves with 5-7 lobes, each with pointed ends
- Bark is dark grey and shiny until maturity
- Acorns are small with shallow caps, with various sizes present on the tree

***Quercus velutina* (black oak)**

Although a less common oak species in Ontario, it is found in our region, tending to be associated with dry tall grass prairie sites in the wild. It may be found in the remnants of oak savannah that exist in Carolinian areas. It grows up to 20 metres and is intolerant of shade but adaptable to soil types. Because it is difficult to transplant and does not compete well with other tree species, it is uncommon in cultivated areas, but very worthwhile hunting down in the wild – and in the Royal Botanical Gardens oak savannahs.

- Leaves have deep U-shaped notches, with 5-7 pointed lobes.
- Mature bark is square and blocky
- Acorns are small – 1-2 cm with a slightly hairy cap

Quercus rubra

Quercus palustris

Quercus velutina

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June 2020

Question of the Month

What are these beautiful flowers?

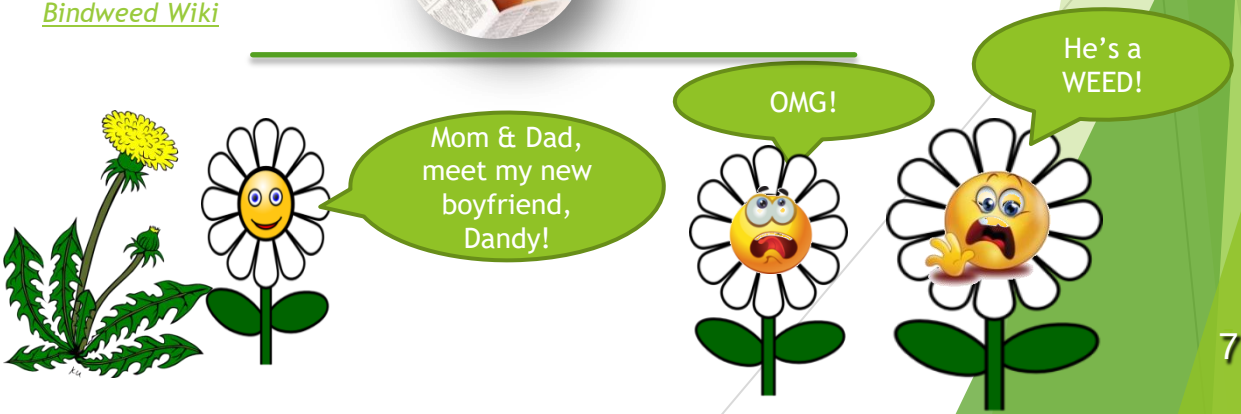
"What are these beautiful flowers? They look like morning glories and are all over my lawn. Do I need to remove them?" **Steven C.**

Oh, no! Those beautiful flowers are bindweed! It's native to Eurasia and appeared in North America in the late 1800's. It's a perennial that can spread by seeds or via deep underground roots, so it's quite a challenge to control. Bindweed seeds can remain viable for up to 50 years in the soil! Reducing the seed bank in the soil by removing flowers BEFORE they go to seed is key to controlling it.

1. Start weeding in spring, as soon as you see the leaves and before flowers appear.
2. Weed when the soil is moist to make it easier to pull. Follow the stems of plants back to the soil and remove the entire plant, including as much root as possible. A dandelion weeder tool or narrow spade may be helpful in digging up plants.
3. When dealing with a large patch, focus on the edges first, reversing the invasion front. Be aware that tilling may encourage seeds to germinate.
4. When weeding, avoid leaving soil bare as disturbed areas are more likely to be invaded by weeds. Replanting with native plants is highly recommended.
5. Dispose of roots, flowers and seed heads in municipal waste, not compost.
6. This process will likely take several years or more with vigilant monitoring.
7. Monitor your garden every spring for new plants which have been seeded by wind or animals.
8. When bindweed is in a lawn, the best strategy is to have a healthy lawn that shades out weeds, including bindweed. If your lawn is thin and unhealthy, you can start by top dressing your lawn and re-seeding. Then follow good cultural practices re mowing and watering. Read more at How to Have a Healthy Lawn
9. Note that some animal manures may be a source of weeds, including bindweed.

For further reading:
Field Bindweed Factsheet
Convolvulus arvensis
Bindweed Wiki

Claudette Sims
Halton Master Gardener



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"What's Growing On"

Halton Master Gardener Meetings are being held virtually until further notice.

We are still answering your garden questions, so send us an email- we love to hear from you! HaltonMasterGardeners@Gmail.com

CBC Radio Online Chats are Back and more popular than ever!

CBC radio

Halton Master Gardeners Liza Drozdov, Patty King, Donna Parker and Claudette Sims team up with Toronto Master Gardeners Tina Cesaroni & Tena van Andel & Royal Botanical Garden experts Jon Peter & Alex Henderson to answer your garden questions. Send your garden questions to us by Tweet to @CBCHamilton or via email to hamilton@cbc.ca

Grab a cuppa & join us!
Every Monday in July from 12:30 to 1:30 p.m.

July 2020

Anishinaabe waadiziwin at ROYAL BOTANICAL GARDENS

TRAIL CELEBRATING INDIGENOUS PLANTS

Native plants provided indigenous peoples with almost all of life's essentials. Starting in the Arboretum near the Nature Interpretive Centre, this new trail explores plants used by the Anishinaabe peoples, and their connections to culture, language, ecology and history.

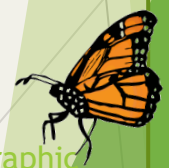
Shelter in Place Gardening Events

WWF

Webinars

Garden For Wildlife Series -World Wildlife Fund - Canada:
Episode 6: Edible Native Plants
Episode 7: Nature's Best Hope

Streaming Videos



Butterfly: A Life | National Geographic
Three Pollinator Plants For Your Garden
Gardeners World episode 10 2020
Gardeners World episode 11 2020
Gardeners World episode 12 2020
Gardeners World episode 13 2020