

CROSS POLLINATION

Halton Master Gardeners Monthly Newsletter
MAY 2025 | VOL. 18 ISSUE 4

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Halton Region
Master Gardeners

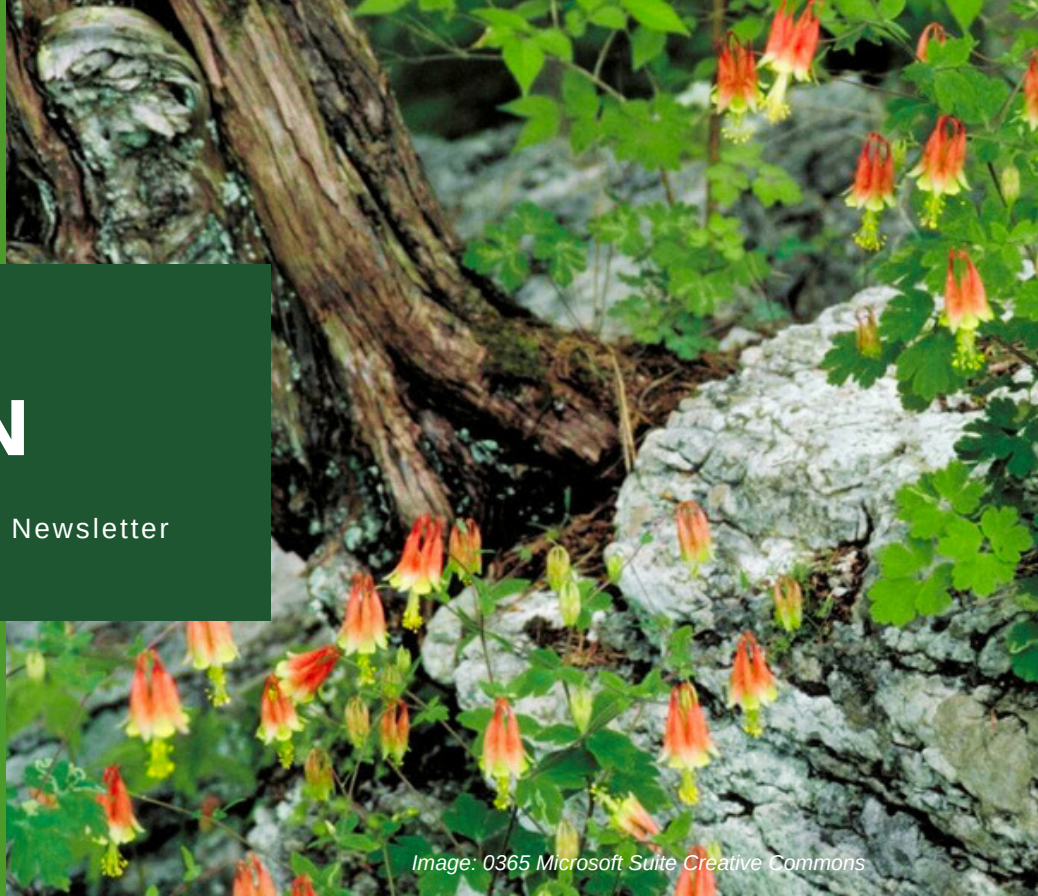


Image: 0365 Microsoft Suite Creative Commons

Wild Columbine, *Aquilegia canadensis*

By Tinamarie Jones, Halton Master Gardeners

For gardeners looking for a hardy native plant with a lot of visual interest, the Wild Columbine is an excellent choice. A member of the Buttercup family, *Ranunculaceae*, Wild Columbine, *Aquilegia canadensis*, is also known as Eastern Red Columbine or Wild Red Columbine.

The charming yellow and red flowers of this perennial are quite distinctive, growing from erect, sparingly branched stems well above the foliage; they have a nodding bell shape. The petals are fused and grow backwards, forming upward-pointing red spurs. It is in these spurs where the nectar is found, and it is this spurred shape which provides the genus name for this plant: *Aquilegia* comes from the Latin 'aquila' meaning 'eagle'. The name references the likeness of the flower shape to an eagle's talons.

The beautiful flowers of the Wild Columbine make a strong impression in the garden. The underside of the flower consists of contrasting yellow sepals with a profusion of bright yellow stamens extending beyond the sepals. The flowers grow off the stem singly or in groups of 2-3.

Image to the right:
Unknown Author
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WILD COLUMBINE, *AQUILEGIA CANADENSIS* (CONT'D)

Its foliage provides a lot of visual interest as well. The foliage can vary in colour from green to a deeper blue green. The leaves themselves are glaucous and ternately compound, with each compound leaf having three roundish lobes. These lobes are often themselves further divided into threes, making the leaf edges look like gently rounded teeth. The leaves can be found at the base of the plant as well as along the round stems.

Once the flowers have died back, if the ground is kept moist, the foliage will continue to flourish throughout the summer season and into fall as an eye-pleasing groundcover. Each spring, the foliage grows back from a caudex (underground stem). Basal leaves form first, creating a small mound of foliage, with the leaves multiplying and spreading out as the growing season progresses. Depending on the quality of the soil and growing conditions, the entire plant including flowers and foliage can grow from 6 inches to close to 3 feet tall.

Wild Columbine blooms from May-July. The spent flowers each produce 5 pod-shaped follicles which contain small, shiny black seeds. The shape of these seed pods is pointed, mimicking the spurred shape of the flower. Wild Columbine will readily self-seed; flowers will appear in the second year. The seeds require cold moist stratification to germinate, regardless of whether they are started indoors or sown outdoors. Fortunately, nature takes care of the stratification for seed sown outdoors in fall (either self seeded or sown by gardeners), however gardeners who wish to start seed indoors need to place them in a cold moist environment for 60 days. Although mature Wild Columbine plants are amenable to being moved, seedlings do not like to be moved.

Wild Columbine is the larval host for a number of moths including the Columbine Duskywing. Moths are important food sources for birds.
Image: [Butterflies and Moths of North America](https://dodsonfarm.wordpress.com/)



Wild Columbine is quite adaptable and can thrive in a wide variety of conditions, but prefers rich, moist, well drained soil. It will grow in full sun to full shade conditions but prefers part shade. It grows particularly well in Zones 3-8. Although Wild Columbine is quite easy to grow, gardeners must ensure there is good drainage or else the plant will not thrive. Wild Columbine naturalizes easily but also hybridizes easily with other Columbines. Gardeners should remain cognizant of this fact if they wish to maintain the unique colouring of Wild Columbine in their gardens.

In terms of faunal value, Wild Columbine has much to recommend it. Hummingbirds in particular enjoy nectaring at the flowers, as do bumblebees, halictid (sweat) bees, and hawk moths. Bees also collect pollen. It is the host for the Columbine Duskywing, *Erynnis lucilius*, as well as the Borer Moth, *Papaipema leuc ostigma*, and Columbine Sawfly, *Pristophora aquiligae* larvae. It has few pests and is much less susceptible to leaf miner damage than other Columbines. Deer, rabbits and other wildlife tend to avoid Wild Columbine, making it a good option for gardens where wildlife grazers pose a challenge.

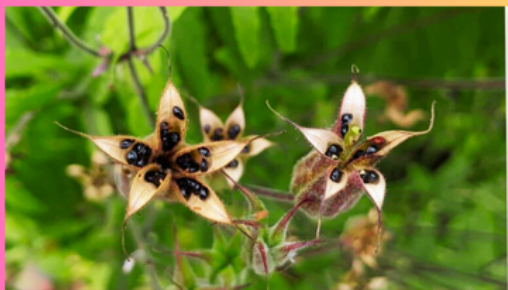


Hummingbirds are attracted to the nectar-rich flowers.
Image: <https://dodsonfarm.wordpress.com/>

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WILD COLUMBINE, *AQUILEGIA CANADENSIS* (CONT'D)

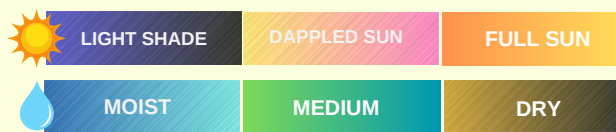
In the garden, Wild Columbine can be used in many ways. It dazzles in rocky areas and rock gardens, and provides a welcome splash of colour and interest throughout any garden when planted alone or in clumps. With its unique flowers on tall stems and interesting foliage below, Wild Columbine is also an excellent choice as a border plant.



Wild Columbine reproduces easily from seed.
Image: [Planet Natural](#)

Read More!

- [Native Plant Gardener](#)
- [Wildflower.org](#)
- [Missouri Botanical Garden](#)
- [Wisconsin Horticulture](#)
- [Native Plant Trust](#)
- [North Carolina Extension Gardener](#)
- [Illinois Wildflowers](#)

**DETAILS AT A GLANCE**

Plant Type, Family: Short-lived perennial
Ranunculaceae (Buttercup Family)

Height/Width: (H) 15 cm (6") to 90 cm (3'), (W) 30 cm (12")

Features: Five pod-shaped follicles with long graceful nodding flowers on thin branches. Few insect pests.

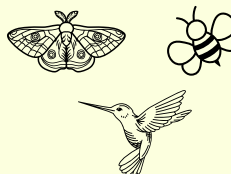
Soil: Rich, moist, well-drained soil.

Faunal value: Larval host plant for Columbine Duskywing, *Erynnis lucilius*. Blooms attract hummingbirds, bees, butterflies & hawk moths. Seeds eaten by finches & buntings.

Companion Plants: Native lupines and ferns

Landscape Uses: Woodlands and rocky slopes, slopes of deep ravines, streams and riverbanks, and fields.

Native Range: 3 to 8

Supports

Vascan

Food Sources for Hummingbirds

Hummingbirds require both nectar and insects for food. In fact, about 80% of their nutrition comes from insects and spiders! Choosing native plant nectar sources will do a double duty of supporting the insects that hummingbirds need to live. Here are some great choices from [In Our Nature Nursery](#):

- Nodding Onion (*Allium cernuum*)
- Giant Yellow Hyssop (*Agastache nepetoides*)
- Milkweeds (*Asclepias* spp.)
- New Jersey tea (*Ceanothus americanus*)
- Buttonbush (*Cephalanthus occidentalis*)
- Spotted Jewel-weed (*Impatiens capensis*)
- Blue-flag Iris (*Iris versicolor*)
- Michigan Lily (*Lilium michiganense*)
- Tulip Tree (*Liriodendron tulipifera*)



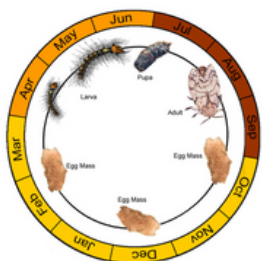
MORE INFO

Plant list and image from In Our Nature

MAY GARDEN 'TO DO' LIST

By Claudette Sims, Halton Master Gardener

- ☐ **Clean tools** – Take the time to clean your secateurs, pruners and saws before starting garden work. A simple wipe with rubbing alcohol between pruning plants will help to stop the transmission of disease. Learn more about caring for your tools on [our website](#).
- ☐ **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 they grow.
- ☐ **Veggies** – **Tomato** seedlings can be transitioned 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 6" high (15 cm) when all danger of frost is past. Plant deeply, right up to the bottom leaves. Transplant tender seedlings like **cucumbers, eggplant, peppers** once the soil has warmed up and the daytime temperatures are consistently above 18°C (65°F). **Corn** needs warm soil to germinate. Sow corn seeds when oak leaves are the size of a squirrel's ear!
- ☐ **Trees** – **Stop pruning oak trees** to prevent deadly [oak wilt disease](#). Inspect all trees for [scale, fungus or other disease](#). Add traps or barrier bands around trees to trap spongy moth caterpillars which emerge from April to June.



Spongy Moth Life Cycle
[Michigan State University](#)



[Tree skirt](#) at the Royal Botanical Gardens

“Promoting Invasive-Free Gardening Across Ontario”

Be a superhero!
Choose native plants
and remove invasive
plants from your
garden.



Learn more at this [webinar](#). My presentation starts at 15:30!

- ☐ **Lawn** – Early to mid-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 ½ inch (2 cm) of fine textured compost/manure. Choose a [grass seed](#) or mixture that suits your light conditions. Areas with moss may indicate soil has been compacted and nutrient level is likely low. Consider [embracing the moss](#) and allowing it to grow, or transition that area to a [non-invasive groundcover](#) or garden bed with plants suited to the existing conditions.
- ☐ **Roses** – Check this informative blog about [caring for roses](#) from the RBG. You can 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 pests: [Butterfly Milkweed](#), dill, fennel, [Golden Alexanders](#), ['Fireworks' Goldenrod](#) (*Solidago rugosa*), [Dotted Mint](#).
- ☐ **Bulbs** – Deadhead spent spring bulbs like tulips and daffodils, but leave foliage intact until it has died back. Tender bulbs like [dahlias](#), [gladiolus](#) and [calla lilies](#) can be safely added to your garden (or containers) after your last frost date. If you've started them indoors to get a jumpstart on growth, make sure to gradually bring them out for a few hours a day for several days to help get them acclimated before planting them in the ground.



Beauty and the Beasts

Kirsten McCarthy, Halton Master Gardener

Spring is an exciting time in the garden. We can finally start to see some colour return to our landscape and visit open-air garden centres. While many of our most loved garden centres are a good place to purchase seedlings and plants, they also harbor enemies of our ecosystem by selling invasive species. Last month, Vandermeer Nursery in Ajax announced the discontinuation of the sale of invasive *Miscanthus* spp. and provided a list of other invasive species they have removed over the last few years. To help gardeners make more informed decisions, the nursery lists native alternatives that help our local ecosystem by feeding native bees, caterpillars and birds with pollen, nectar, leaves and seeds. Their “Know Before You Grow!” slogan inspired this monthly article that will help you identify common invasive species (in the garden and at the garden center), learn how to safely remove them from your landscape and choose native alternatives that will benefit the ecosystem by creating biodiversity.

What are invasive plant species?

Invasive plants are non-native species that spread rapidly and invasively, causing serious harm to the environment, economy, and even human health. Invasive plants can take over entire landscapes, outcompeting native species for sunlight, water, nutrients, and space.

How did they get here?

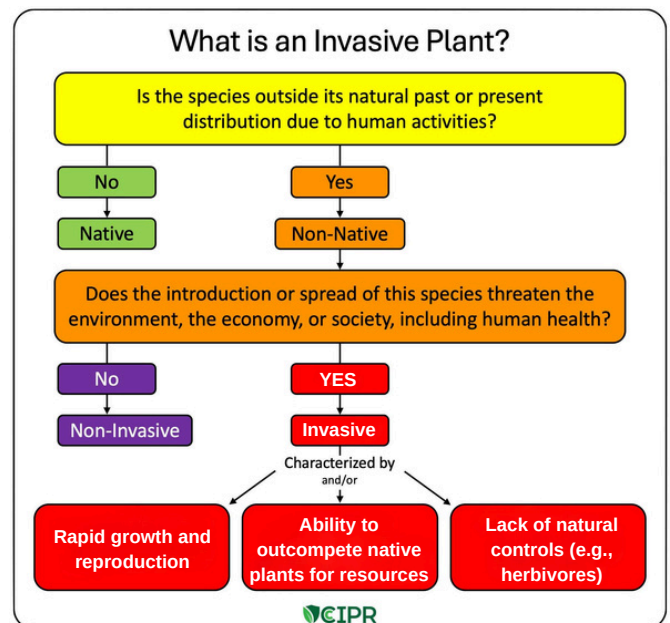
Many invasive plants were introduced intentionally for landscaping, erosion control, or agriculture, while others arrived accidentally through global trade and travel. Some plants arrived from their native regions because people brought them along for personal or cultural reasons—as familiar foods, traditional medicines, or reminders of home. Plants like Japanese Knotweed, Garlic Mustard or English Ivy may seem harmless—or even attractive—but they quickly become dominant forces which are very difficult and costly to remove.

*Think Before You Sow!
Plant Smart From The Start!*



Why is it important to remove them?

The impact of invasive plants is far-reaching. They reduce biodiversity by pushing out native plants, which in turn affects the animals and insects that rely on those native species for food and habitat, effectively destroying local ecosystems. Invasive plants can also disrupt soil health, increase wildfire risk, and alter water and nutrient availability.



What can I do?

Combating invasive plants starts with awareness. Gardeners and homeowners can help by removing known invaders and avoiding the use of invasive species in landscaping. Each person can make a difference by learning to recognize and manage invasive plants. We can protect the natural beauty and ecological health of our environment. The battle against invasive plants isn't just about preserving plants—it's about protecting the ecosystems we all depend on. Over the next issues we will be writing a series of articles exploring invasive plants, best practices for safe removal and plant alternatives.

Continued on next page

BEAUTY AND THE BEASTS (CONT'D)**Lily of the Valley (*Convallaria majalis*)**

Lily of the Valley (LOTV) is a spring blooming perennial ground cover which spreads by both seeds and rhizomes. It thrives in shaded gardens and along the forest floor. LOTV is an old-fashioned nostalgic plant from Europe and Britain: in Europe it's symbolic of spring, and in Britain it is the birth flower for May. It is also toxic to dogs and cats, a fact that is often overlooked in favour of keeping LOTV for nostalgic and cultural reasons. Here, its large colonies out-compete our native spring species for moisture, sunlight, nutrients and space.

Identification

Lily of the Valley grows to a height of 10" and has a spread of 1 to 2 feet with lush green, oval leaves and delicate, fragrant bell shaped white flowers. The flowers have a sweet, pleasant aroma that consist of six fused petals. During September, LOTV develops tiny orange-red berries that house the seeds.

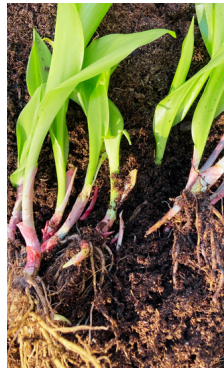


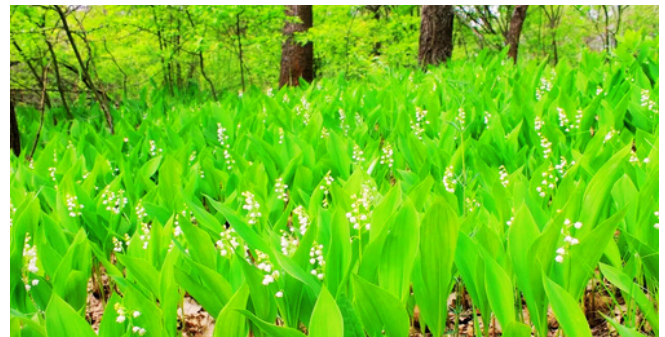
Image London Orchid Co.

Removal

It is best to dig out Lily of the Valley when the soil is damp, after a rain or after you've watered your garden. It is important to remove it in its entirety, making sure to remove the rhizomes before it sets seed. You'll need to dig about 2' down into the soil and gently follow the rhizome to the main root ball and remove it from the soil. This will require patience as the rhizome can easily break. Even a small bit of rhizome left in the soil can sprout a new plant. You can also remove them in the early spring by smothering them with either a weighted tarp or thick mulch on top of a layer of cardboard. Before smothering, be sure to cut the plants to the ground and then lay down the tarp, cardboard or 8-10 layers of damp newspaper over the invaded area. You'll need to leave this in place for one entire growing season. Eradicating Lily of the Valley can sometimes take a few years before all rhizomes are removed and the seed bank is depleted.

Disposal and Prevention

Once you have removed as much as possible, it is imperative that you dispose of the plants in black garbage bags and put the bags out with your weekly trash. It is important not to put the rhizomes and root ball in your compost or yard waste as this practice will not kill the roots, and new plants can sprout.



Lily of the Valley on Forest Floor
Image: OlyaSolodenko

Native Alternative

A beautiful and beneficial alternative to LOTV is the spring blooming Starry False Solomon's Seal (*Maianthemum stellatum*). This groundcover for a shady woodland garden grows between 20-50cm (8"-20") high with a spread of 20-45cm (8"-18") and puts on a show early in the season with its plumes of white star-like flowers.

The flowers give way to green and black striped berries that turn deep blackish-red when ripe. The berries are a food source for songbirds while the flowers are a nectar and pollen source for sweat bees and flower flies.



Image: Prairie Moon Nursery

Further Information:

- [Canadian Coalition for Invasive Species](#)
- [Halton Master Gardeners - Lily of the Valley](#)
- [Native Alternatives to Invasive Plants](#)



Native Plants That Gardeners and Bees Can Agree On

By Nikolina Radulovich, Halton Master Gardener



Did you know that what you choose to plant in your garden can have a real impact on pollinators? [A study from Oregon](#) explored which native wildflowers gardeners are most likely to plant, and what makes them change their minds. While the research focused on species native to the U.S. Pacific Northwest, the insights are surprisingly useful for Ontario gardeners too, especially those trying to support bees and create more sustainable gardens.

One of the most encouraging findings was that gardeners are already quite open to planting native flowers, especially when those plants look good and aren't overly aggressive. In the study, when gardeners were simply shown photos of 23 native flowers, many responded positively, with several plants getting top marks for attractiveness and likelihood of being planted. But what made the biggest difference was what happened next. After seeing a simple photo of a bee visiting the flower and learning a short fact about its value to pollinators, gardeners were significantly more likely to say they'd plant it. Some flowers jumped a full point on the five-point rating scale. The message was clear: a small dose of ecological information, paired with the image of a working pollinator, can completely reshape how a plant is seen.



Yellow sprays of goldenrod 'Fireworks' flowers explode in a backyard garden.

What also came through clearly was that gardeners care about more than just beauty. Concerns about aggressive growth, maintenance, and whether a plant would thrive in their yard often shaped their decisions. This suggests that if Ontario [Nurseries and Garden Centres](#) want to help pollinators, they need to not only stock native plants but share practical information about them. And for gardeners, it's a reminder to keep asking questions and exploring new species. Some flowers with huge ecological value, like Globe Gilia or Douglas Aster, might not be familiar names, but they could be worth trying if we had better access to seeds or starts.



Image: Canva

Here in Ontario, we may not find the exact same species from the study, but we do have plenty of beautiful native flowers that support local bees. Plants like [Fireworks Goldenrod](#), [Wild Columbine](#), and [Heart Leaf Aster](#) have similar traits and benefits. The main takeaway from the research is that gardeners are open to using more native plants when they understand the ecological value and feel confident they'll perform well in their gardens. If you're not sure where to start, try chatting with local plant groups, checking seed libraries, or simply planting a small native patch of something new this season. Your garden can still be beautiful while giving pollinators a boost, and all it might take is a little learning and a few new choices.

Further Information:

- [A Fresh Look at Gardening, C. Kavassalis](#)
- [Get to Know Goldenrod](#)
- [Your Guide to Native Ontario Plants](#)





By Hariette Henry, Halton Master Gardener

There are certainly a number of native shrubs that would make for a nice hedge. However, you might want to look at a mixed native hedgerow.

Hedgerows are linear plantings of shrubs, trees and thickly tangled vines. They were first used by humans as a way to corral livestock. Later, in the UK once agriculture began in the Bronze Age (3500 BCE), they were used as tree and shrub boundaries to create livestock-proof living fences.



Image: People's Trust for Endangered Species, UK

In their best form [hedgerows enhance ecological biodiversity](#). They provide key ingredients that animals, birds, reptiles, amphibians and beneficial insects and pollinators need to survive – food, shelter, nesting and denning sites. Hedgerows also function as corridors, connecting one habitat to another and offering a safe passage for wildlife. In the [built-up areas of cities and towns](#) they provide shade and cooling as well as attractive borders that block undesirable views. They help muffle sound, create privacy and act as windbreaks, as well as preventing water run-off and air pollution.

Ideally a hedgerow should be 4 to 5 metres wide and planted with a variety of berry and seed-bearing shrubs. It should be thick, bushy, and largely unpruned and entangled with vines.

“ I would like to create a low boundary hedge at the front of my property using native plants. The conditions are full sun and well draining soil. I am open to a variety of plant species including fruiting plants. ”

However, for those of us living on small urban plots even a short, narrower hedgerow can be attractive to wildlife. Planting should be quite dense with a double line spaced 16” apart with plants in a staggered pattern at 12”, totalling 5 plants per metre.



Image: Janet Donnelly, Oregon State University

It is best to plant a combination of seed- or nut-bearing shrubs (like speckled alder and hazel) and berry producers (serviceberry, chokecherry, red osier dogwood). Thorny shrubs (wild rose, wild raspberry, hawthorns) give added protection to wildlife.

Because they're comprised of living shrubs, [hedgerows grow and require management](#). It's important to balance growth to keep the plants from becoming gapped or unruly. Watering your hedgerow during the first year encourages the establishment of your new plants. Once the bed is established native plants are almost always trouble free.

Plant recommendations for full sun, well draining sandy loam:

- Common Elderberry, *Sambucus canadensis*, to 3 m
- Flowering Raspberry, *Rubus odoratus*, 1-2 m
- Winterberry Holly, *Ilex verticillata*, 3-4 m
- Wild Raisin, *Viburnum cassinoides*, to 5 m
- Wild Rose, *Rosa acicularis*, 1 m
- Willow spp., *Salix* spp., 1-6 m depending on sp
- New Jersey Tea, *Ceanothus americanus*, 1-2 m
- Sand Cherry, *Prunus pumila*, 1-2 m
- Ninebark, *Physocarpus opulifolius*, 1.5-3 m

Additional Information

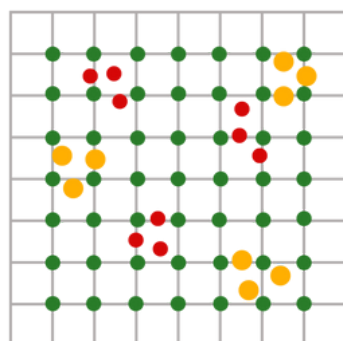
- [A Guide to Hedgerows, Oregon State University](#)
- [What is a Hedgerow?](#)
- [Hedgerows for the Home Garden](#)



Garden Inspiration!

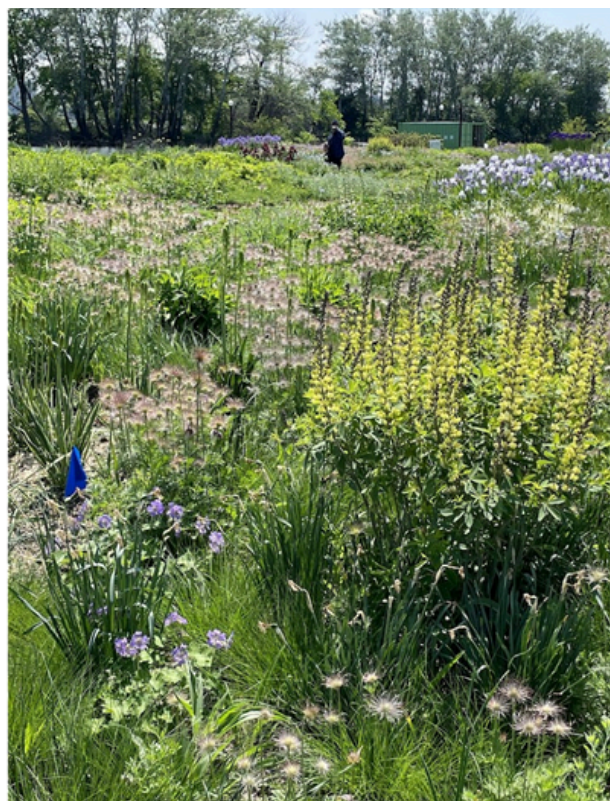
Matrix Planting

Matrix planting is a key concept in naturalistic landscaping design.



● <i>Bouteloua gracilis</i>	● <i>Solidago speciosa</i>
● <i>Aquilegia canadensis</i>	● <i>Liatris aspera</i>
● <i>Heuchera richardsonii</i>	● <i>Allium cernuum</i>
● <i>Coreopsis verticillata</i>	● <i>Symphotrichum oblongifolium</i>
● <i>Echinacea pallida</i>	

The key is the base layer - the green mulch. This layer covers your whole garden to help prevent weeds from gaining hold so that you don't have to apply wood mulch.



[Piet Oudolf's garden](#), Detroit, Michigan - May blooms. Photo by Morag Johnston

Beneath the soil, the roots form a matrix at multiple levels, hence the name.

This example of a matrix planning diagram, above, from [Benjamin Vogt's article](#) *Let's Design a Garden* shows a green mulch layer plan with spring blooming plants mixed in.



The New Perennialist's Garden, Mono Township, Ontario, offering limited tours.
[Photo](#) by Tony Spencer.



[Gothenburg Botanical Garden](#), Gothenburg, Sweden. Photo by Morag Johnston

More from Master Gardeners:

- [Plants as Mulch](#) by Halton MG Janet Mackey
- [Planting a Streetside Meadow Matrix](#) by Thousand Islands MG Nathan Nesdoly
- [The Matrix](#) by Peterborough MG Lois Scott



What's Growing On?

By Trish Moraghan, Halton Master Gardener



[Way of the Woods Camp](#)

Be on the look out for



[Sunday, May 11, 2025](#)



[Hemlock Woolly
Adelgid](#)



[Oak Wilt](#)



[Garden-in-a-Box](#)

PLANT SALES



[Guelph](#)

[Saturday, May 24](#)



[Mississauga](#)

[May 31-June 1](#)



[Oakville](#)

[Saturday, May 17](#)



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[events page](#) for updates



What's Growing On?



[Green Angels Program](#)



[Arboretum in Bloom](#)



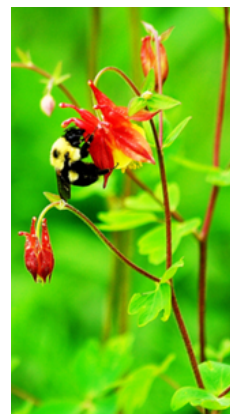
[Indigenous Plant Medicines Trail](#)



Plant Native Plants to Enrich Biodiversity



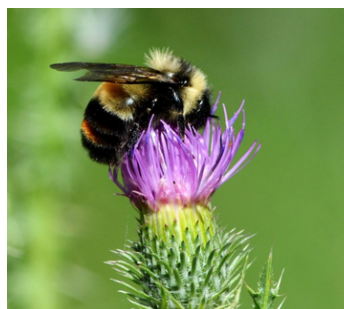
[Container Gardens](#)



[Why Native?](#)



[Print Resources](#)



[Celebrate Native Plants](#)



[Native Plant Nurseries](#)

Check our [calendar](#) for events



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. The content displayed in our newsletter is the intellectual property of Halton Region Master Gardeners and their authors. It can be shared in its entirety, but specific content should not be reused, republished or reprinted without the author's consent.

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