

CROSS POLLINATION

Halton Master Gardeners Monthly Newsletter
DECEMBER 2022 | VOL. 15 ISSUE 11

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Halton Region
Master Gardeners



Winterberry *Ilex verticillata*

By Kathleen Terry, Halton Master Gardener

Winter is coming!

Ahhhh, the bulbs are planted, the plants are nestled all snug in their leaf covered beds, "it's time to relax"said no gardener ever! It's time for reflection on what we didn't get done, on what we'd do differently... and, oh yes....what we can add!

As we look at our leafless bushes and the outline of our beds, we can clearly see the bones of our gardens. As gardeners, we eventually come to realize that our guiding principles aren't just about creating pleasing summertime vistas, but that what we do should add value year round to creatures other than ourselves.

Look around! Where are there gaps? What might be missing? Can we add something? (Is that ever really a question we ask?)

Winterberry, *Ilex verticillata*, is a plant that can extend our gardens' appeal into winter for ourselves of course, but also by providing habitat and food for wildlife throughout the year. This *Ilex* is a species of holly in the *Aquifoliaceae* family. It is native to southeastern Canada from Newfoundland to Ontario.



Continued on next page

WINTERBERRY (CONT'D)

Cultural Conditions

Suitable for zones 4a to 6b, it is one of those lovely twiggy, multi-stemmed plants that can adapt to almost any situation. In its preferred sunny, moist, acidic situation it will be happiest, and can form a handsome clump, so it is ideal for a rain garden. It can however grow quite well in the average garden, in a drier, less sunny location. It is slow growing and medium sized, from one to two metres high.

Like all hollies, it is dioecious—so you get to acquire not only one but at least two plants, a male and a female. There are several cultivars that will produce showier flowers and larger fruit, but these aren't as attractive to birds. If you choose cultivars it should be noted they will flower at different times so it's important to select two or more that will flower at the same time so as to enable cross pollination. Examples are 'Berry Poppins' and 'Mr. Poppins' which are in the early flowering group.



Image: [University of Nebraska Extension](#)

Cultivars are often characterized as either "northern" (e.g., 'Jim Dandy') or "southern" (e.g., 'Southern Gentleman'.) The small white inconspicuous flowers are arrayed along the branches and appear in late spring to early summer. Flowers of female plants have a raised green nub in the centre which will become the berry. The male flowers have a recessed centre with a crown of fluffy anthers.

Supports Biodiversity

There aren't many diseases or pests that are interested in winterberry but it is very attractive to insects, butterflies, birds, and wildlife. The native specialist bee *Coletes banksi* feeds only on *Ilex* so this plant is a must for this solitary ground nesting bee.

Image: [Wisconsin Butterflies](#)



The foliage is host to more than 30 species of butterflies and moths including Henry's Elfin butterfly (pictured) and Harris' Three Spot Moth.

The most notable feature of this plant is the clusters of vibrant red berries that persist well into spring when coldness has lowered their bitterness and when other berries, higher in fats and oils, have already been consumed. They are a valuable late-winter food source for overwintering and returning migratory birds. Cardinals, juncos, robins, vireos, and waxwings feast on winterberries even though they are toxic to most other animals.



If you're looking for an adaptable, medium-sized plant that is visually pleasing year round and is an important aspect of habitat for wildlife, one to consider could be winterberry. ❁

Further reading:

- [Native Plant Species Profile – Winterberry Holly](#)
- [Ilex verticillata](#)-Missouri Botanical Garden
- [Prime Plants for Nature: Backyards for Nature 2021 Native Plant Awards](#)
- [Native Bees - These Bees Plastic-wrap their Brood Cells](#)



DECEMBER 'TO-DO' LIST

by Claudette Sims, Halton Master Gardener

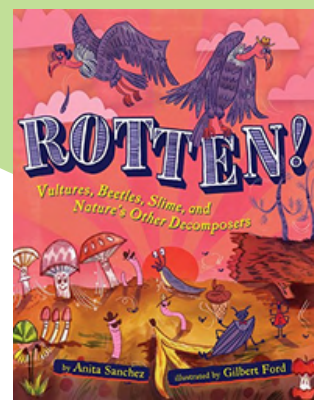
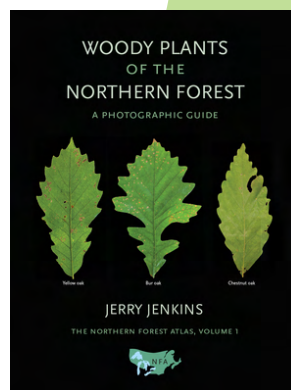
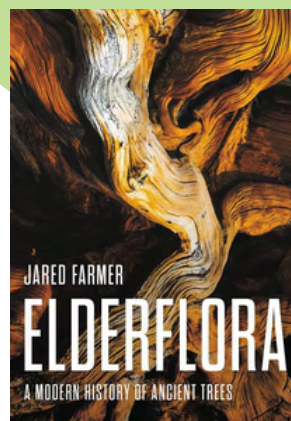
Indoor house conditions in December and January are challenging for many **houseplants**. Follow these best practices for healthier plants:

- ☐ **Watering** – use **room temperature** water. Keep a container filled and ready to use. Plants with thick, rubbery leaves **usually need less water**. Plants with thin or delicate leaves **usually need more water**. Water only as needed-check by touching the soil or lifting the pot. If it feels “heavy”, wait and check it again in a few days. Avoid watering the “crowns” of plants, as this can lead to rotting, e.g., African violets, primroses, orchids.
- ☐ **Clean & Tidy** – A water spray in the sink, shower or with a spray bottle keeps leaves healthy & free of dust and pests. Spray plants in the morning to reduce disease issues. Remove dead or dying leaves as they appear. Avoid spraying succulents as it can cause [powdery mildew](#).
- ☐ **Light** – Place plants in brighter south facing windows and rotate the pot ¼ turn weekly for even growth. Not enough light? Use [grow lights](#) or add reflective white surfaces to increase light.
- ☐ **Fertilizer** – Most houseplants don't need fertilizer unless they are actively growing. For plants that are flowering or growing, feed them “weakly, weekly”, using a dilute organic fertilizer.
- ☐ **Pests** – Watch for these signs of pests: sticky areas, dulling of leaves, webbing, white fuzz, brown scales. Use a magnifying glass or [phone app](#) to identify pests-an accurate ID helps to target treatment. Many insects can be kept in check with frequent misting and weekly showers. Trap flying insects with [yellow sticky strips](#). Treat [mealy bugs](#) (they appear as white fluff) and [scale](#) (tiny dome shaped shells) by wiping with a cotton swab dipped in alcohol. Spraying with a **commercial** insecticidal soap can control many indoor pests but you need to spray the pest directly. Repeated treatments are usually needed.

“Give the gift of reading to a gardening friend or favourite child!”



Click on each book to learn more



- ☐ **Lawn** – If you still have leaves on your lawn, rake them into the garden, or bag/compost to store for spring mulching when the weather permits. Avoid walking on the lawn if soil is soft and leaves footprints.
- ☐ **Read** – Curl up with a favourite garden magazine or book-see the [excellent selections on our website](#) and above, for both reading and holiday gifting!
- ☐ Check out our November [newsletter](#) for any garden jobs that you may have missed.

KEYSTONE PLANTS – A GIFT TO NATURE

By Cathy Kavassalis, Halton Master Gardener

As winter approaches, gardeners often reflect on their summer successes and dream of how to improve areas that may have gaps. It is also a time where thoughtful gifts are presented to family and friends. Perhaps this year during the season of giving we might consider, as gardeners, what we can give to nature. Perhaps you have space for a **keystone plant**?

What are keystone plants?

Keystone species are plants that play a pivotal role in nature. Just as the keystone is the foundational piece of an arch, keystone plant species are essential in supporting healthy ecosystems. Without them animal and insect populations can collapse or can even cease to exist and become extinct.

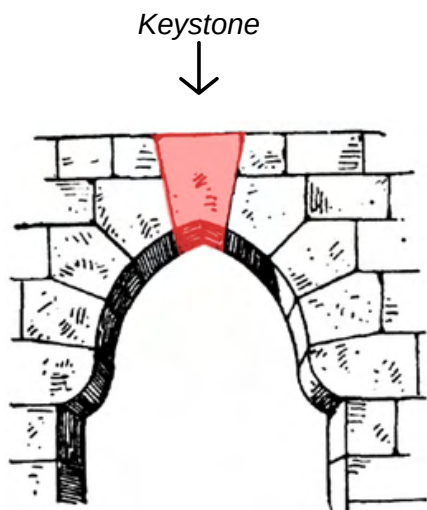


Image: [Wikimedia Commons](#)

To better understand the role that keystone plants play we need to take a step back and think about the role of plants in general. Plants gather energy from the sun and that energy is shared with organisms that consume plants. A bug eats a plant and becomes food for a frog that may become food for a snake that may become food for a hawk. The lives of myriad species are intertwined in complex webs of life. These interconnections are often woven over long periods of time.

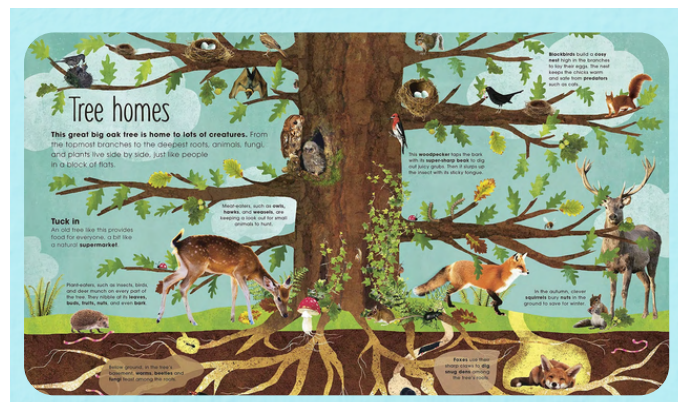


Illustration: Claire McElfrack from
The Magic and Mystery of Trees by Jen Green

Some connections act as lifelines where one organism cannot survive without the other. Classic examples of this are the yucca + yucca moth and fig + fig wasp associations. Over millions of years, these plants coevolved with very specialized pollination partners. The pollinators require the plant for food, and the plants require the pollinator for reproduction. While not all links within food webs are as specific, many native plants, animals and insects did evolve together, and in association with the features of a place, e.g., the soil, water, climate, to develop specific important relationships.

Native plants are most often the preferred and healthier food option of native wildlife like birds, bees and butterflies. The various components plants make, e.g., protein in pollen, sugar in nectar and nutrients in berries, vary from one species to another and native plants are best suited to support our native birds, animals and insect populations. We recommend aiming for **70% native plants in gardens** to protect native biodiversity. (This number is **by mass**, so one tree can make a huge difference.)

But “native plants, even within biomes, are not all equivalent in terms of their contributions of energy to food webs,” (Narango & Tallamy & Shropshire, 2020). New research shows that certain plants provide benefits to a wider range of species than others. **These are keystone species.**

Continued on next page

KEYSTONE PLANTS – A GIFT TO NATURE (CON'T)

According to Dr. Doug Tallamy and his team of researchers, “**5% of native plants support 75% of caterpillar food webs.**” Caterpillars are essential to support native bird populations because they are an essential food for baby birds. So without the plants that feed caterpillars, the bird population collapses.



Choose these Powerhouse Plants!

Plant trees such as **oak, cherry, willow, birch, poplar, and maple** to support caterpillar populations for birds. Choose these flowering plants to support our specialist bee pollinators (1/3 of all bees are pollen specialists): (*Helianthus* spp.), goldenrod (*Solidago* spp.), aster (*Symphyotrichum* / *Eurybia* spp.), *Rudbeckia*, beggars tick (*Bidens* spp.) and fleabanes (*Erigeron* spp.).



Goldenrod (*Solidago* spp.), Woodland Sunflower (*Helianthus* spp.), The Bronte Oak (*Quercus* spp.), Tickseed (*Coreopsis*), Woodland Aster (*Symphyotrichum* spp.)

There are many more plant options:

- The National Wildlife Association has posted [Keystone Plants by Ecoregion.](#)
- Woody species native to your ecodistrict at [Forest Gene Conservation Network](#)
- Herbaceous species are native to your region is a bit trickier:
- For Southern Ontario, I use: Oldham, Michael. (2017). [List of the Vascular Plants of Ontario's Carolinian \(Ecoregion7E\).](#)

I encourage you to watch “[Keystone Species of Native Plants](#)” prepared by the Master Gardeners of Arlington Virginia. It is a two-part video discussing first woody plants and then herbaceous plants. While not all species are appropriate for Ontario gardens, most occur naturally in the Carolinian region.

If each of us finds space in our garden for just one of these outstanding plants, imagine the collective gift we will be giving to nature in the coming year and beyond. Remember that these plants will endure even after we have moved to a new home. Their leaves, flowers and branches will continue to provide food and habitat for many years ahead as they mature in the garden. Even seeds that emerge may take root nearby, continuing the cycle of replenishing our local ecosystems. ✿

Related Links:

Visit Halton Master Gardeners website and [map of native nurseries](#). It's best to locate them early in the growing season.

- [Keystone Species of the Eastern Temperate Forests](#) – Master Gardeners of Ontario Facebook
- [Spotlight on Keystone Plants – Goldenrod – Blooming Boulevards](#)
- [Native Keystone Plants for Wildlife](#) – Dr. Douglas Tallamy

squirrel-proof!

No need to harden off seedlings!



No need for indoor space or stuff!



less chance of disease

You get lots of plants!



recycle / re-use containers

easy, inexpensive & fun !

Wintersown seedlings have labels!



Why Winter Sow?



You can take a worry-free vacation in April!



image: Michael Coughlan

natural cold-moist stratification

HOLIDAY DECOR FROM YOUR GARDEN

Sheila Gutierrez, Halton Master Gardener

A natural look and fresh fragrance for your home this holiday season isn't too far away. A fresh cut supply of holiday greenery may be as close as your own backyard. So how does one bring nature to adorn your indoor or outdoor space?

Gathering Greenery

Greenery gathered from your garden is as fresh (and affordable) as it gets. You'll need gloves, pruners, and a bucket to place cut stems. When gathering greenery it is important to keep in mind that the plants are actually being pruned. Most evergreen trees and shrubs need little to no pruning but a little pruning can keep shrubby evergreens well proportioned, play a major part in maintaining the health of trees, and continue to keep the tradition of decorating with fresh greens alive. Consider carefully which branches to cut and which ones to leave by following the **THREE C's** basic guideline. Look for branches that are **competing** for the same space, **crossing**, and/or **crowded**. With evergreens, it's important to spread the pruning around to different areas of the tree/shrub, or gather from multiple shrubs so that no bare areas are suddenly apparent. Most evergreens will not re-grow branches if they are cut back to where there is no growth. The exception is yew (*taxus*), which does produce new branches.

When some greenery is left behind the cut (remaining on the branch), the evergreens will put out new growth the following year. On shrubs such as juniper, a branch above may cover the gap where a cut is made. Stand back frequently to review your cuts and ensure that not too much is removed from any one area.

The Right Tools

The right tools will make pruning easier. There are many pruning tools but a good pair of pruning shears, lopping shears, or a hand saw will suffice.

- Pruning shears may cut up to $\frac{3}{4}$ of an inch in diameter
- Lopping shears have a long handle and provide great leverage for branches up to 1 $\frac{1}{2}$ inches in diameter
- Hand saws are very important for cutting any branches over 1 inch in diameter

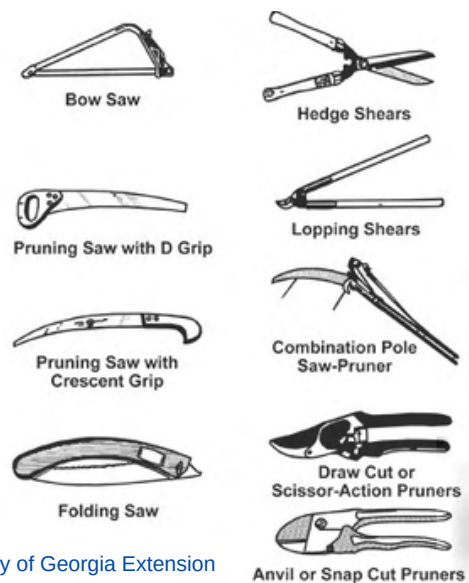


Image:
University of Georgia Extension

What to Collect

Evergreen boughs form the backbone of most holiday projects, but do not overlook deciduous twigs and plants with berries to add colour, texture and interest to your design. Below are some suggested, more common plants:

- Pine: Great needle retention and fragrance.
- Cedar: Has a wonderful fragrance and texture.

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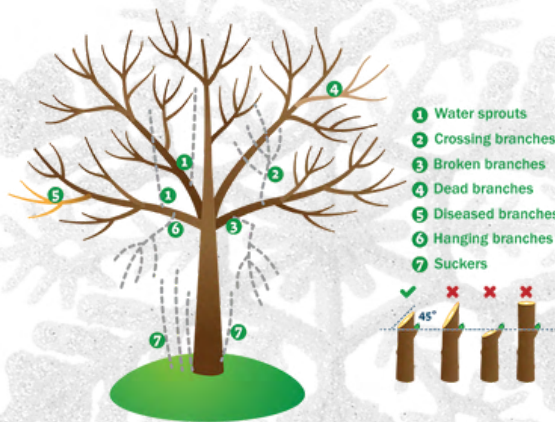


Image: Botanix Decors & Gardens

HOLIDAY DECOR FROM YOUR GARDEN (CONT'D)

- Juniper (*Juniperus*): Fragrant, short green or silver foliage, oftentimes with blue berries. The needles are often sticky.
- Firs (*Abies*): All firs have a wonderful scent and good tolerance of hot, dry indoor conditions. The needles are short and flat with excellent color and needle retention.
- Spruce (*Picea*): Stiff branches with short needles, blue spruce adds another colour element especially attractive in wreaths.
- Yews (*Taxus*): Nice shiny green foliage to add texture.
- Holly (*Ilex aquifolium*): Traditional holiday green which may have bright red berries and, as a broadleaf evergreen, green leaves (See Note).
- Nannyberry (*Viburnum lentago*): They produce flat white flowers in spring followed by red berries that ripen to a blackish colour in the fall. The berries stay on the plant throughout the winter and are great for wildlife and adding interest in holiday décor.
- Crabapples (*Malus* spp.) and Hawthorns (*Crataegus*): Hawthorns are smaller and red. Ornamental crabapples come in a variety of sizes but are often smaller. Note: Most, but not all sweet crabapples have small thorns on at least some branches.

NOTE: Once cut, broadleaf evergreens such as boxwoods and holly (with leaves) will blacken in freezing temperatures. Use these for indoor arrangements.



hawthorn (*Crataegus*)



winterberry (*Ilex verticillata*)

**What NOT to Collect**

Become knowledgeable about some of the highly invasive plants in our region. Many of these may have attractive seed heads or structure, however by visiting a site where these plants are growing you may inadvertently transfer seeds on your footwear (or with any furry companions) to your home landscape or other natural areas. The seed heads themselves may then be distributed by wind, water or small animals seeking food.



Unfortunately many of these plants are growing unchecked in natural areas because there are no natural predators, pests or diseases. The overall result is that they suppress plants which naturally grow in that ecosystem.

Some to watch for:

- [Phragmites australis](#) (European common reed)
- [Miscanthus grasses](#) (fountain grass, zebra grass)
- [Rosehips from multiflora roses](#) (also known as baby, Japanese, many-flowered, multiflowered, rambler or seven-sisters rose)

INVASIVE: multiflora rose (*Rosa multiflora*)

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HOLIDAY DECOR FROM YOUR GARDEN (CONT'D)

Keeping it Fresh

- After pruning branches with clean, sharp tools, immediately put the cut ends into water until ready to use
- Immerse greenery in water to allow cuttings to absorb moisture
- Keep finished décor out of direct sunlight or use an anti-desiccant (i.e., *Wilt-Pruf*) to prevent them browning or drying out
- Plan to replace shriveled fruit throughout the season
- If placing them into a planter (with soilless potting mix or floral foam), be sure to water generously once your display is complete

Decorating Safely

- Never place greenery near heat sources such as heaters, candles or vents
- Some popular plants used in holiday decorating such as yews, mistletoe, and bittersweet can be poisonous for small children or pets

Let Your Imagination Flow

With your fresh supply of plant materials and a creative touch, you can begin to create your own, very unique holiday decorations including: wreaths, garlands, planters and centrepieces. You will be able to take pride in the fact that you gathered your own plant materials from your garden. Don't be afraid to experiment with different textures, seed pods, berries, colour and form. ❁

Additional Resources

[Pruning Evergreens](#)

[Evergreen Pruning Calendar](#)

[Using Greenery to Bring a Little Holiday Cheer](#)



Images: (Clockwise from top left) balsam fir, white cedar, juniper, white spruce, white pine

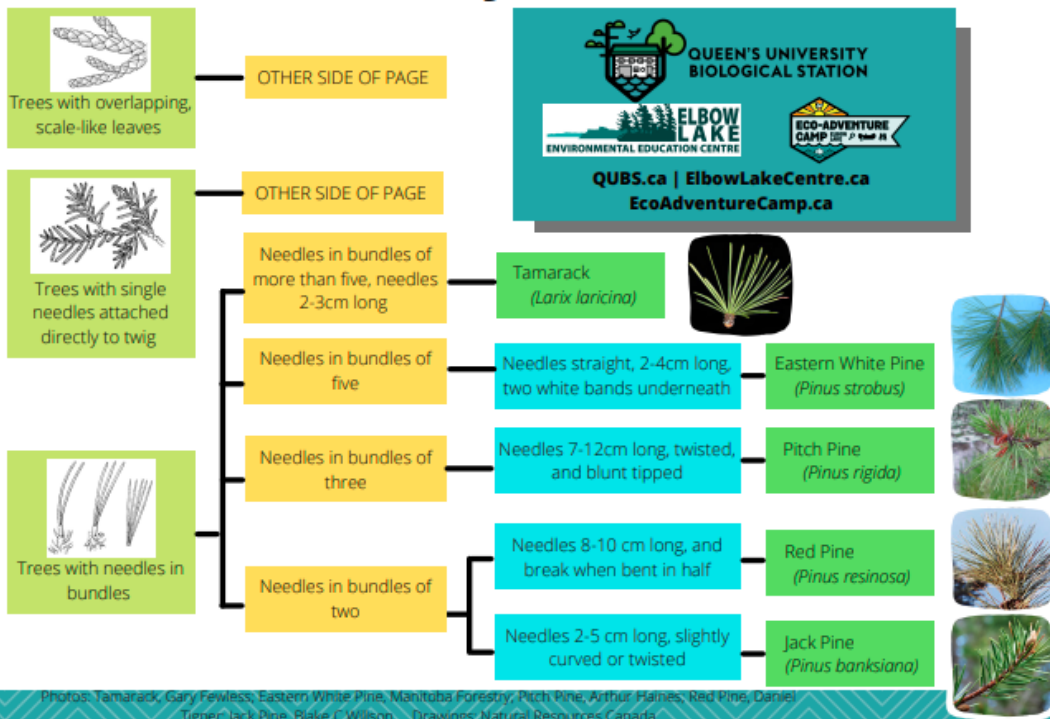
CONIFER IDENTIFICATION

Why not work on your identification skills this winter? Here are the dichotomous keys for conifers.

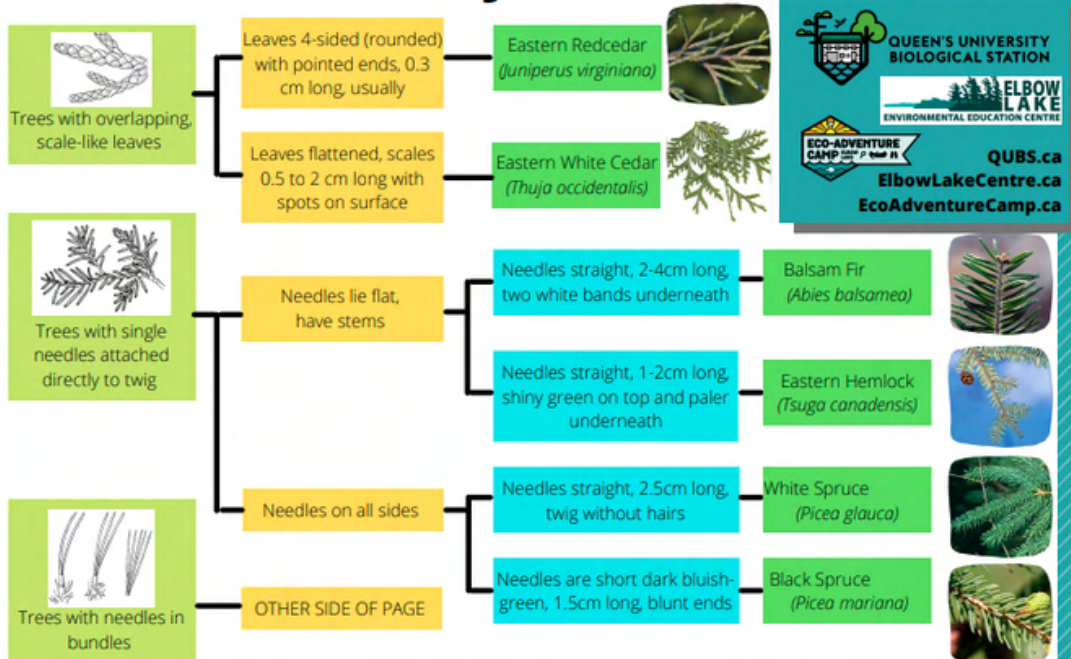
[SEE : 'What is a dichotomous key?'](#)

From: [Queen's University](#)

Dichotomous Key: Coniferous Trees



Dichotomous Key: Coniferous Trees





By Hariette Henry, Halton Master Gardener

Sorry to hear that you've had problems with rodents. You should probably take away the feeder until the rodent population is under control. Backyard feeders can supplement the diet of birds, particularly in winter, but some basic guidelines need to be followed.

Before we discuss best practices for backyard feeders, we should probably talk about other ways to attract birds to your yard. Planting native plants is one of the best strategies that homeowners can use to attract birds. Credit Valley Conservation has produced a "[Native Plant List for Breeding Birds](#)" which ranks plants according to their capacity to provide food and shelter for birds. This list can be very useful to help create a more ideal ecosystem benefiting birds and other wildlife.

Other ways to create a bird friendly yard, particularly in the fall and winter months, is to leave the leaves, the seed heads and the berries from those native perennials. A healthy layer of leaf litter means more moths, which in their caterpillar phase are a crucial food source for nestlings and fledglings. Building a brush pile from fallen branches can provide shelter from predators and bad weather.

If you're going to welcome birds to your yard, house cats (if you have them) should remain indoors. It has been estimated that domestic cats kill roughly 100-350 million birds in Canada annually. Fortunately, forward thinking municipalities including Hamilton and Burlington have established an animal control bylaw that includes a "no-roam" policy for cats.

"I set up a bird feeder in my backyard last year. Unfortunately, I didn't realize that this could attract rats and mice. I like birds and I enjoy feeding and seeing them. Is it a good idea to feed birds or is this something that should be avoided?"

Pesticide use should be avoided as pesticides are toxic to birds, harming them not only directly but through contact with contaminated seeds or prey. Pesticides can also harm birds indirectly by reducing the number of available insects which birds need to survive.

Water is an important resource that birds need year-round. Hollowed out boulders and man-made bird baths offer opportunities for birds to drink and bathe. If possible, making windows safer with screens or decals or simply closing the blinds or curtains at night can help avoid collisions. Feeders should be placed less than one metre or more than 10 metres away from buildings to minimize the risk of window collisions.

Feeding wildlife in general is discouraged for good reason, but research has shown that birds don't generally become dependent on feeders. Lower temperatures during winter months mean birds need a lot more food just to maintain their body temperature. Providing food that is high in energy helps them get through this challenging season.



Evening Grosbeak (male), Common feeder bird of Eastern N. America, The Cornell Lab of Ornithology



Reducing harm from feeders, primarily from diseases and predators, is key to successful feeding. Placement of feeders is important. They should be no more than 3.5 metres from cover and there should be an unobstructed view around feeders so that foraging birds can detect predators.

Feeders should be made from plastic, steel or glass as these materials are easiest to clean. Using small feeders reduces the number of birds and the contact between them at any one time. Seed should not sit long enough to get wet or spoiled, and keep an eye on the birds at your feeders. If any look sickly, remove your feeder until those birds disperse. Feeders should have a perch away from the food to avoid fecal contamination.

Your feeder should be cleaned and disinfected at least twice per month while in use to discourage disease and contamination. Using a scrub brush and hot, soapy water to clean debris is recommended. After cleaning, the feeder should be immersed in a solution of one part liquid chlorine bleach to nine parts warm water, then rinsed thoroughly and left to air dry.

Providing your bird population with high quality seed containing less filler such as, e.g., Milo, red millet, oats, rice and wheat, reduces the seed that will be discarded by birds. This fallen seed attracts unwanted rodents so if you do have spillage, it is a good idea to attach a tray below the feeder and clean whatever falls to the ground on a regular basis.



Different bird species prefer different types of seed, so a greater variety of seeds will attract a greater variety of bird species. Sunflower seeds are a top choice among most birds. Suet is also recommended, but only in winter as it goes rancid in the heat. Safflower seeds, nyjer seeds and peanuts are other good choices that will attract a variety of species.

What type of feeder should you use? Feeders that are weight sensitive, have cages and baffles underneath them (making them squirrel and predator resistant), and that contain individual off-centre perches that discourage contact are recommended.

Finally, if you are struggling with the decision to feed or not feed wild birds, I would suggest looking at some of the articles below. The author of "In Defence of Feeding the Wildlife", Kyle Horner, uses a series of six questions, what he calls the Potato Principle, to determine the value of feeding wildlife, in this case wild birds. And he does it in quite an engaging way. ✿

Take a Closer Look!

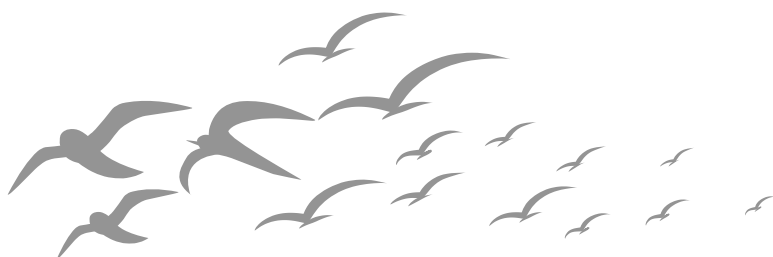
[In Defence of Feeding the Wildlife](#)

[To Feed or Not to Feed Wild Birds, Bird Feeders Can Be Sources of Joy – and Disease](#)

[How to Make Your Yard Bird-Friendly](#)

[To Help Birds This Winter, Go Easy on Fall Yard Work](#)

[To Feed, or Not to Feed](#)





GARDEN INSPIRATION



WINTER DECOR HIGHLIGHTING NATIVE PLANTS

Many gardeners have added a variety of native plants into our landscape that can offer beautiful texture and interest through a long winter. Have you considered including these plants into winter arrangements? Not only can you create unique displays, but it is also a sustainable alternative to heading out in the car and shopping at the local market. Of course there must be consideration to not remove too much plant material because many creatures depend on the food and shelter they provide. While most conifers are obvious choices, how about considering some other plant species? Take a walk in your garden, you just might be surprised.



What's Growing On?



Royal
Botanical
Gardens



[Winter Wonders](#)



[Winter Camp](#)



[Train Display](#)



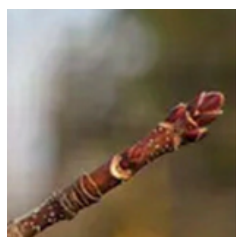
[RBG Express](#)

We're here to answer
your gardening
questions!

Answering your
Gardening
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](#)
- Follow us on [Facebook](#)



Virtual and In-Person Workshops
Learn more [here](#)

Check our [calendar](#) for events

What's Growing On?



Burlington [Festival of Lights](#)

All the Best in 2023!

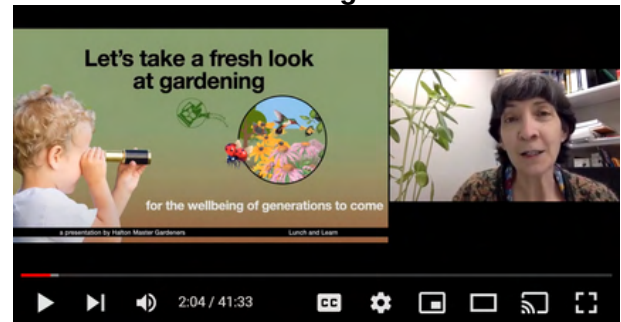
Thank you so much to our dedicated newsletter team: Isabel- the **best copy editor ever!** Trish who does our What's Growing on? section. Writers: Allyn, Bev, Cathy, Janet, Kirsten, Kath, Harlette, Sheila, Claudette.

See you **next February!**

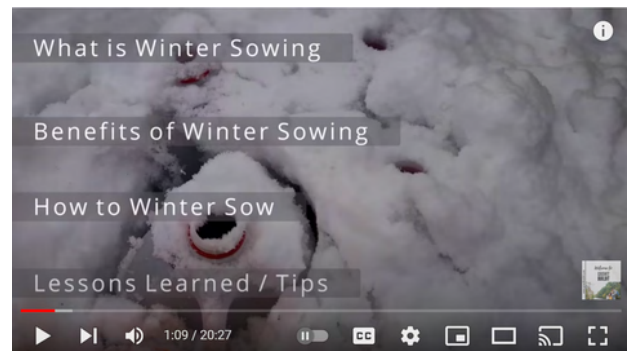


Winter Gardening Videos

Click on the image to watch!



A Fresh Look at Gardening
with Halton MG Cathy Kavassalis



How to Winter Sow Seeds



How do Trees Survive Winter?

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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