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by guest writer Kevin Kavanagh, Grand Erie Master Gardener

Once widespread throughout eastern and south-central North America, the Eastern Flowering Dogwood (*Cornus florida*) with its bold white spring bloom is a much loved native tree widely celebrated in spring dogwood festivals in many communities in the eastern United States. It is recognized as the state flower of North Carolina, the state tree of Missouri and as both the state tree and flower of Virginia. Even within its restricted Canadian range it has been adopted as the floral emblem of Norfolk County, Ontario in the heart of our Carolinian forest region. This understory forest tree ranges from southern New England, New York, Ontario and Michigan, south to Florida and westward to eastern Texas and Oklahoma. There are also isolated populations known from Mexico which are described as *Cornus florida* subsp. *urbiniana*.

Eastern Flowering Dogwood is an ideal tree for the smaller garden. It only grows to a height of 6-9 metres (20-30 feet) at maturity but is often much smaller. The horizontal pattern of branching is not unlike that of candelabra with a horizontal branching pattern, one of its most distinctive features, especially in the winter landscape. The bark on older trees is blocky and rough like alligator skin. The leaves turn bright red or reddish purple for an extended period in autumn, often beginning to show some colour in late August or early September.

Images: Kevin Kavanagh

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EASTERN FLOWERING DOGWOOD (CORNUS FLORIDA) CONT'D



Image: Eastern Flowering Dogwood Fall Colour Kevin Kavanagh

The overall impression of the tree is one of stateliness; the University of Georgia's Michael Dirr refers to it as the "aristocrat of small flowering trees." Despite its natural preference for full to partial shade in nature, the species also thrives in sunny, open locations, and these are the preferred conditions in which to locate it in a garden. Its preferred soils are typically well drained, somewhat acidic and rich in organic matter. It is the perfect small tree to plant with oak and pine as a backdrop.



Pink blooms of a Dogwood cultivar by Kevin Kavanagh

The spectacular spring show of flowers is produced just as its leaves emerge in late May. Each inflorescence consists of a crowded cluster of small, yellowish-green true flowers surrounded by four large white, or more rarely pink (*C. florida* var. *rubra*), petal like bracts; the total inflorescence or bloom measures 7 - 10 cm (three to four inches) across. Flower buds are set the prior year, so even in the depth of winter it is relatively simple to gauge how impressive the spring flowering will be.

Pink-flowering forms and cultivars are slightly less hardy than white-flowering forms. Trees grown from Ontario sourced seed are dependably hardy through USDA zone 5a/5b. Small clusters of two to 10 bright red fruit mature by early fall for each spring flower produced and are especially conspicuous in October. *Cornus florida* is a member of the dogwood family (*Cornaceae*), and like most species in that family their fruit is important for wildlife. Many birds, including American robin, northern cardinal, ruffed grouse and wild turkey are known to feed on dogwood fruit and, for many songbirds, it provides essential nourishment for the demands of their southward migration in autumn.

In some locations, twigs can be browsed in winter by deer and rabbits, and bark eaten by rodents, especially on younger trees.
Sadly, Eastern



American Robin feeding on the fruit of Eastern Flowering Dogwood; Gregor Beck Oct 3, 2023

Flowering Dogwood is now suffering major population declines in many parts of its natural range from the introduction of the Dogwood Anthracnose Fungus (*Discula destructiva*). The impact of this fungus is most serious for trees growing in deep shade and has contributed to major population declines in forest stands within the Carolinian Region of southwestern Ontario. As a result, the species is now listed as endangered in the province.

Fortunately, trees in more open areas fare much better as the disease struggles to infect plants where sun and wind create conditions less favorable for its establishment. This is good news for gardeners with open, sunny areas in their gardens where *Cornus florida* can remain a highly desirable native tree for the home landscape.



MAY GARDEN 'TO DO' LIST

By Claudette Sims, Halton Master Gardener

Clean tools - Before doing any garden work, take the time to clean your secateurs, pruners and saws. A simple wipe with rubbing alcohol between pruning plants will help to stop the transmission of disease. Learn more in this article.

Perennials – Divide and transplant overgrown fall blooming perennials on an overcast day before they fully emerge. Check this extensive <u>spreadsheet</u> of individual perennials for when and how to divide them.

Veggies – Seed cool weather crops like lettuce, peas or radishes in beds or containers now. Harden off **seedlings** starting in mid-May, in a sheltered location, from 1-2 hours on day 1, and increasing each day to full sun. Plant tomatoes in the garden when they're about 6" high (15 cm) and all danger of frost is past. Plant deeply, right up to the bottom leaves. **Corn** – Sow corn seeds when oak leaves are the size of a squirrel's ear!

Tender annuals—Wait until the temperatures are warm enough at night before planting, usually the May 24th weekend.

House plants – Increase watering & feeding, preferably with a dilute organic fertilizer. If the soil is drying out quite quickly between watering, it may be time to repot, one size larger. Note: <u>Hoya</u> and <u>Nile Lily</u> (*Agapanthus*) flower when slightly pot bound, so repot these less often.

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 attractive companion plants near your roses to attract beneficial insects and extend the bloom season: Butterfly Milkweed, dill, fennel, Golden Alexanders, 'Fireworks' Goldenrod, Calico Aster and Spotted Bee Balm,



6 6 How to plant cucumbers?





Cucumbers can be planted any time in May after danger of frost is past. Folklore has it that, to protect them from insects, they should be planted on May 1st (the old pagan holiday of Beltane) before sunupfor best results, they should be planted by a naked young man.

ed just 1 inch below the suramp rot in case of heavy

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 bare areas and then top dress with a ½ inch (2 cm) of fine textured compost/manure. 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 mossy areas to a garden bed with non-invasive groundcovers or plants suited to the existing conditions.

Spent blooms and stems – Remove spent blooms of hydrangea, chop and drop stems or "plant" them in front of a fence or wall for birds and stem nesting insects.

Weeds and invasive plants – Keep pulling lawn weeds such as dandelions and monitor your garden for seedlings of invasive garlic mustard, buckthorn, multiflora rose. Check this weed ID guide to help identify common weeds in your garden.





Lily of the Valley—Lovely or Lethal?

Pam McDonald, Halton Master Gardeners

Barney has been running amok in the neighbourhood again, and this time I find myself in the doghouse too—and all because of Lily of the Valley (LOTV)! I found him digging up a patch of Lily of the Valley in my neighbour's garden along with her dog Fifi. Lily of the Valley is a plant that evokes strong emotions—admiration in some and horror in others. Perhaps you fondly recall the perfume of LOTV in a wedding bouquet or as a cherished plant from a family member. However, if you have LOTV in your garden, those emotions can guickly shift to frustration as you attempt to remove it, anger toward the person who initially planted it and, sadly, guilt if it escapes your garden. Remember, while Lily of the Valley may have its allure, it's essential to consider its impact on the ecosystem and choose alternatives that harmonize with our native flora.

Native spring
ephemerals: clockwise Spring Beauty (Claytonia
virginica, Trillium (Trillium
grandifolium), Virginia
Bluebells (Mertensia
virginica)

Invasive and harmful to biodiversity, Lily of the Valley (*Convallaria majalis*) shares the growth and propagation characteristics of the invasive plants profiled in our *April issue*. It has both rhizomes and fibrous roots, and birds eating the berries disperse the seeds with their droppings. It is less widespread than the 'Troublesome Trio', but LOTV can spread quickly, forming dense colonies that not only leave no room for other plants but also outcompete native species for moisture and nutrients.

This invasive behaviour puts our beautiful <u>spring</u> <u>ephemerals</u> at risk. Trilliums, Anemones, Virginia Bluebells, and Spring Beauties struggle to survive when this garden bully is around. Once established in a garden or natural area, it is a tenacious plant that is difficult to eradicate.

Supporters of LOTV highlight its amazing perfume and delicate bell-shaped flowers. While it's true that LOTV is highly prized in perfume making, few mention that all parts of the plant are toxic to mammals, including humans, and contact with the plant, especially the roots, can cause skin and eye irritation. It contains poisonous cardenolides, known for inducing cardiac disturbances akin to digitalis. The roots harbour the highest concentration of cardenolides. The conspicuous red berries can attract the attention of curious young children and pets, especially dogs. Lily of the Valley is listed in the Atlas of Invasive Plants and on poison control lists in several jurisdictions in the US and Canada.



A Lily of the Valley invasion in one of Ottawa's most beloved Conservation Areas, Mud Lake. According to the website, the 60-hectare natural environment is home to 44 rare and 15 uncommon plant species. The area is also home to or visited by 269 species of birds.

Image: Charlene Addison-Dixon - Facebook, Canadian Coalition of Invasive Plant Regulation - CCIPR

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Starry Solomon's Seal

(Maianthemum stellatum)

Christmas Fern

(Polystichum acrostichoides)

LILY OF THE VALLEY—LOVELY OR LETHAL (CONT'D)

lacksquare . If you adore LOTV, don't despair—there are plenty of other beautiful lacksquarenon-invasive plants you can add to your garden.

Garden use: Canada Mayflower can form large patches in a large variety of habitats.

Growing conditions: Part shade, shade, medium to moist soils; good choice for acidic soil.

Size & shape: 20 cm tall



(Maianthemum canadense)

Flower & Berries: Tiny white, fragrant flowers held in upright clusters appear in late spring. Greenish red berries appear in late summer

Benefits: Berries are eaten by birds and small mammals, especially ruffed grouse, mice and chipmunks.

Garden use:

Groundcover for shady woodland garden.

Growing conditions: Part shade/full shade with moist to dry soil. Adaptable.

Size & shape: 25-50 cm

Flower: Dainty white flower on single arching

Fruit: Deep blue-black berries that go red in fall.

Benefits: Feeds birds, deer resistant, spreads readily in a

variety of soil and light conditions.

Garden use: Lime green leaves add brightness to shaded places, good accent for other shade plants **Growing conditions:** Part shade/full shade with moist soil, tolerates dry soil once

established Size & shape: 15-30 cm tall

Seersucker Sedge (Carex plantaginea)

Flower: Unique black bracts with fluffy stamens appear in early spring and fade by early summer.

Benefits: Supports pollinators as pollen sources or as

larval hosts.

Garden use: Evergreen, tolerates somewhat drier soils than most ferns. A good companion for woodland wildflowers **Growing conditions:** Part shade/full shade with welldrained, rich soil. Avoid planting in consistently moist or heavy clay soils. Mulch with fallen leaves.

Size & shape: 30-60 cm tall

juglone tolerant. A clumping fern that can be divided in

Benefits: Attracts ruffed grouse, deer resistant and early spring to form a mass.

Some other alternatives to consider:

Pennsylvania sedge (Carex pensylvanica), maidenhair Fern (Adiantum pedatum), barren strawberry (Geum fragarioides)







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LILY OF THE VALLEY—LOVELY OR LETHAL (CONT'D)

Removal and Disposal

- To remove the rhizome and fibrous roots: Use a spade to dig the plant out in clumps when the root zone is moistened from recent rain or due to watering.
- Wear gloves when handling the plants, especially severed roots, to avoid skin irritations.
- Monitor the area seasonally, and expect regrowth from missed pieces of the roots.
- Remove newly emerging plants and expect to repeat the process to get all of the roots out.
- It is also recommended to smother or <u>solarize</u>
 the area after removal to ensure the plants have
 been eradicated.
- If you are concerned about the appearance of the area, lay down a tarp and cover it with 8" of mulch. Add a few containers of colourful annuals suited to the light conditions.
- Continue to check under the perimeter of the tarp weekly.
- Dispose of the plants in sealed black garbage bags, leaving in a sunny place until the plants are 'cooked and killed'.
- Put out as garbage, NOT as garden waste.
- · Replant the area with non-invasive alternatives.

MAY'S FLOWER IS Lily of the valley

Original Image from Harrowsmith Magazine

The Continuing Barney Saga

While my neighbour was apoplectic about the damage to her plants, I was relieved the dogs weren't eating them. I suppose I should have been more sympathetic



when I blurted "Good riddance! That plant is poisonous and invasive!" She replied that her mother and grandmother *loved* LOTV and had it in their gardens. (Sigh—another case of NIIMBYS (Not Invasive In My Backyard Syndrome). I grabbed Barney by the collar and made apologetic noises on my way out of her yard.

Later in the day, I ran into my neighbour returning from the vet with Fifi. This time, I was much more sympathetic and she was uncharacteristically subdued as she asked "What was that you were saying about my plants being poisonous"?

I invited her in for a coffee...



Resources

Invasive Plant Atlas:

- Lily of the Valley
- Distribution Map

Removal:

 Ontario Parks Invasive Species (see Sections 2.4, 2,5)

Information and Resources in event of suspected poisoning:

- Ontario Poison Centre
- Colorado State University Guide to Poisonous Plants

Cultivating Diversity: Book Review of Native Plants of the Southern Great Lakes Region

by Emma Murphy, Peterborough Master Gardener

"Native Plants of the Southern Great Lakes Region" by Rick Gray and Shaun Booth is a must-have guide for Ontario gardeners. This is the native plant gardening resource I wish I had more than five years ago when I started incorporating native plants into my garden.

Focused specifically on the Southern Great Lakes Region, it's an all-in-one, easy-to-use resource for those interested in plants that not only look wonderful but also fulfill a critical role in our gardens in supporting wildlife, birds, and pollinators such as butterflies, moths, bees, and insects. It reminds me of an encyclopedia, with a full-page spread on each native plant. It's not surprising that's it's already #4 on the Globe & Mail's bestseller list.

The Gardener's Guide to

Native Plants
of the Southern Great Lakes Region

Rick Gray and Shaun Booth

FEATURES
OVER
BO NATIVE
PLANTS
PLANTS

The book's design makes it easy to see key information at a glance, using quick guide icons and colour-coded bars highlighting exposure/light and moisture requirements. There are also numerous appendices that match soil types, seed collection, preparation, propagation, and butterflies and their host plants, as well as each plant's <u>Ontario's Species at Risk</u> status. You'll understand what each plant needs to thrive, how big they will get, and how to make more plants to share with your friends!



There are lots of beautiful photos, detailed descriptions, easy to see symbols, information on the USDA Plant Hardiness Zones, lifespan, propagation, as well as wildlife/pollinator value.

I appreciate that in the introductory chapters the authors clearly explain:

- · What is a native plant?
- · Aggressive vs invasive
- Origin of the term weed
- · Nativar vs cultivar
- · Value of native plants

The authors' sense of humour is evident in pages titled – A coneflower by any other name, Fifty shades of...shade and my favourite 2b or not 2b (Hardiness zones).

CULTIVATING DIVERSITY (CONT'D)

I have to say that as a seasoned gardener I was surprised to see *Echinacea pallida* (Pale Purple Coneflower) is not in the book (not native to most of this region but often sold as a native) but *Agastache foeniculum* (Anise hyssop) is included although it is not native to southern Ontario (it's a north western Ontario (Thunder Bay) and west to the prairies plant). Oops! I have both in my garden north of Peterborough.

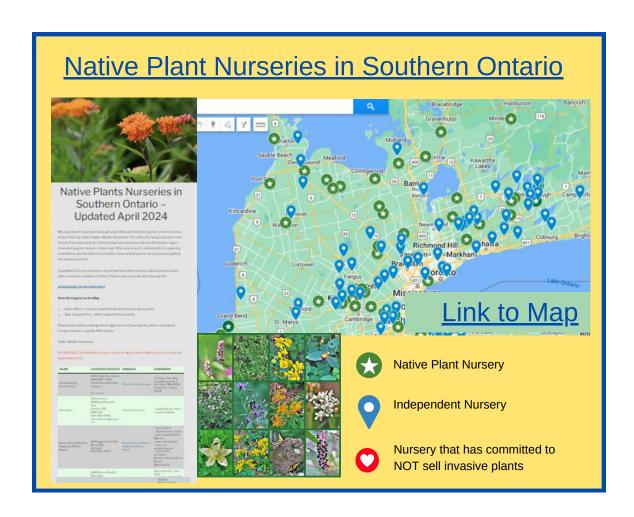
Was anything missing? Technically no, as the authors were clear that this was not a garden design book.

Perhaps after putting out Vol. 2 (the other150+ plants they wanted to include), they'll consider including a section on understanding planting density, creating root competition, and good plant pairings.

This book is perfect for reading at home or taking with you to your local nursery as you search for native plants to add to your garden.

The bottom line: it's a wonderful addition to my garden library. I recommend it to anyone interested in incorporating more native plants in their Ontario gardens.

Locate Native Plants at Native Plant Nurseries





By Hariette Henry, Halton Master Gardener

In this era of rising costs, you might be thinking of ways to economize in the garden, perhaps re-using and/or re-vitalizing essential items such as potting soil. This is particularly important if you have large containers or you garden exclusively in containers.

The term potting soil is a misnomer. Potting mixes, also called soilless mixes, usually contain a combination of peat moss, bark chips, coir fiber, perlite or vermiculite and composted matter. These mixes, intended for plants in containers, retain moisture, provide air space for roots, and are free from weed seeds, insects and diseases. They do not, however, last forever. Plants use up the nutrients as they grow, and the mix can become compacted and can lose its capacity to hold water as it ages. Sometimes pests, diseases and weeds emerge, popping back up when you replant something new into the same mix.

It is usually fine to re-use potting soil if your plants did well last year and weren't showing any signs of disease or pest problems. If you did notice pests or disease, it's possible to destroy these pathogens through pasteurization. There are a couple of techniques for sterilizing soil such as solarizing: placing the soil in black plastic bags in direct sun for 4 to 6 weeks, or baking the soil in a 180F-degrees oven for 30 minutes. Both techniques have down sides—bad smells as well as killing desirable organic material that may have been left in the soil—and you may decide that its not worth the risk or the effort.

Is it a good idea to re-use potting soil?



Image:Savvy Gardening

Once the used potting soil is deemed safe and you are ready to proceed with it, you'll need to recondition it. This can be accomplished as follows:

- Dump used potting soil in a wheelbarrow and sift through to remove old roots, dead stems, and other debris.
- Break up compacted chunks.
- For every two buckets of old soil add one bucket of new organic matter such as compost, worm castings, aged manure, or leaf mold.
- Replenish minerals and nutrients with the addition of a slow-release organic fertilizer.
- Blend everything together and as you stir, spray in water until the soil has the moisture level of a wrung-out sponge, then refill your containers

Once these steps are taken you should be ready to move forward with next year's plantings. If reconditioning pre-used soil is not in the cards for you there are other ways to re-use old potting soil:

- as a topdressing to promote the germination of slow-sprouting seeds
- to fill up holes in your yard caused by moles and other animals
- as additional soil in the compost pile
- and finally, to add soil to the bottom of large containers

For a <u>how-to on re-vitalizing potting soil</u>, see the attached video from our colleagues at Toronto Master Gardeners.

Garden Inspiration!

Container Gardens for Native Plants

Know Your Space

- Light conditions—how much sun or shade your garden will receive during the day per season. This will inform your plant species choices.
- The amount of wind plants will be exposed to will also affect plant choice.
- Freezing—You'll need to choose containers that can withstand freezing so they can stay outside year-round wherever you are in Canada.



Ellhat's Growing On? By Trish Moraghan, Halton Master Gardener





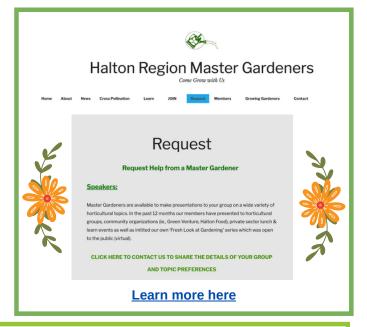


What's Growing On?









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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