# CROSS POLLINATION

Halton Master Gardeners Monthly Newsletter FEBRUARY 2025 | VOL. 18 ISSUE 1

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By Sundaura Alford-Purvis, Guest Writer and Native Plant Expert

Hello Sunshine! We thought that this cold weather needed some brightening up with a beautiful write-up on the Narrow-Leaved Evening-Primrose, Oenothera fruticosa, AKA Common Sundrops. Sundaura gardens near Ottawa and is the owner of <u>A Cultivated Art Inc.</u> We hope you enjoy it!



This particular species came to my garden through a case of mistaken identity. Sundrops are a common garden species in the communities that I've lived in over the years. I knew them as a perennial that spread very quickly but that had such showy blooms that they retained a space in many gardens despite their disinclination to stay in one place.

They would appear as little burgundy rosettes of foliage as soon as the snow melted, sending up green leaved stems topped with reddish buds that opened into brilliant yellow flowers in June. Their fast self-propagation made them a species that was as commonly found at plant swaps as (invasive) orange daylilies and the (usually slug munched) Hosta albomarginata. I've seen them in more than one country yard, growing up out of a half buried, painted tractor tire (pretty much the only way to keep them in one place), blooming their golden heads off.



Image: Sundaura Alford-Purvis



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#### "WINTER'S GOLDEN REMEDY: SUNDROPS IN BLOOM" (CONT'D)

So, when I decided to dig and gift some of the non-native species from my urban garden in the fall of 2020 and refill the space with native species that shared a similarly exuberant nature (i.e. the fast spreaders) I included Sundrops in my plant order. I figured that they would happily hold their own along side Obedient Plant, a couple of different Monardas, a few Goldenrod species and Heart Leaved Asters (these last don't spread all that quickly in my garden; they are just very good at holding their space).

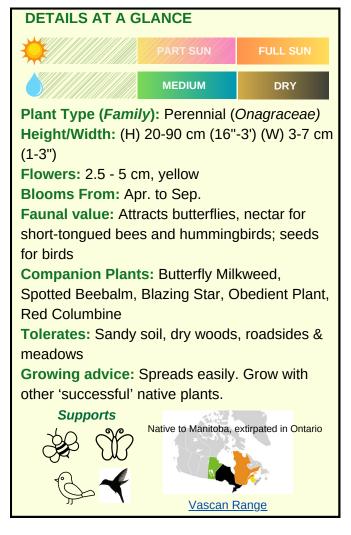


The plants that arrived weren't quite what I was expecting. These pointy green leaves were Sundrops? The native one? Where were the rounded, burgundy leaves that I was expecting? There was plenty of gardening to do so I went ahead and tucked them in and didn't really think about it again until spring, when pictures of rosettes of burgundy leaves began popping up in garden groups where they were, more often than not, misidentified as Ajuga and almost never identified as Sundrops.

I went digging for an image. Searches for *Oenothera fruticosa*, the species that I had thought was the native Sundrops, weren't resulting in any photos of burgundy rosettes of leaves.

The mystery was bugging me. All the nurseries sold *fruticosa*, labeled as native but, despite how closely the flowers matched, this clearly wasn't the species I've been seeing in gardens for years. Who was this mysterious, yet incredibly common, plant? Off to VASCAN again, to the List Builder tool this time. A search for all of the Oenothera of Ontario, then back and forth between that (surprisingly long) list and Google images.

Some cool surprises (who knew Butterfly Gaura was not only native to Ontario but has actually been reclassified as a member of the *Oenothera* family?) and, finally, an answer to the mystery.



Happily, they weren't one of the 7 introduced species of Oenothera growing outside of cultivation in the province. The plant that was in everyone's gardens: *Oenothera pilosella*, Meadow Evening-Primrose. Mystery solved and another species to add to the garden at some point.

So, what about those *Oenothera fruticosa*? Well first of all, they didn't even show up on that <u>VASCAN</u> list of *Oenothera* in Ontario. A name search got me an answer. They once grew in Ontario, outside of cultivation, but are now considered to be extirpated. Since their range extended here prior to what I would guess is loss of range due to land use change, I'm going to go ahead and include them in this native plant series.

Continued on next page

#### "WINTER'S GOLDEN REMEDY: SUNDROPS IN BLOOM" (CONT'D)

For their first year in the garden, they put on an amazing show, growing so many flowers that they knocked themselves over they were so top-heavy. As the garden matures over the next couple of years, they'll be able to rely on their neighbours for a bit more support but I'd expect them to be a reclining species in a garden with too much open space. I think that they are likely to grow to a couple of feet tall and spread to form a patch, albeit a bit more slowly than *O. pilosella* would in the same situation. They seemed to be perfectly happy with part shade and weren't too bothered by dry spells in the summer. The seed heads developed into very hard, lumpy bunches that I gathered but haven't yet gotten around to breaking open (I may actually need pliers, they are really hard pods) since they will be one of the species I sow in the spring, rather than the winter.

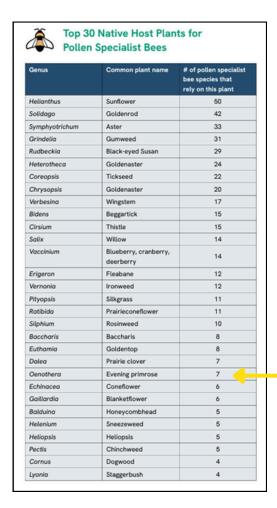
#### For more information:

- Sundaura's <u>blog post</u> on Sundrops with companion plant suggestions
- Oenothera fruticosa Narrow-leaved Evening-primrose
- Oenothera pilosella Meadow Evening-primrose



#### **FUN KEYSTONE PLANT FACT!**

Without the Evening Primrose, *Oenothera biennis*, there would be no Evening Primrose Sweat Bee (*Lasioglossum oenotherae*). The hind legs of this specialist bee have evolved to be able to collect the triangular pollen, exclusively from that specific plant. Further Information: <u>Keystone Native Plants</u>









8	X	Top 30 Keystone Plant Genera for Butterfly and Moth Caterpillars		
G	enus		Common plant name	# of caterpillar species that use th as a host plant

Genus	Common plant name	# of caterpillar species that use this as a host plant
Quercus	Oak	436
Prunus	Almond, apricot, cherry, peach, plum	340
Salix	Willow	289
Betula	Birch	284
Populus	Aspen, cottonwood, poplar	249
Acer	Maple	238
Malus	Apple	237
Vaccinium	Blueberry, cranberry, deerberry	217
Carya	Hickory	213
Pinus	Pine	200
Alnus	Alder	173
Ulmus	Elm	164
Picea	Spruce	132
Tilia	Basswood	132
Rubus	Blackberry, raspberry	127
Juglans	Walnut	125
Fraxinus	Ash	121
Fagus	Beech	116
Castanea	Chestnut	115
Abies	Fir	112
Larix	Larch	110
Corylus	Hazel	108
Solidago	Goldenrod	104
Myrica	Bayberry	103
Rosa	Rose	102
Symphyotrichun	Aster	100
Cornus	Dogwood	98
Tsuga	Hemlock	92
Amelanchier	Serviceberry	92

#### FEBRUARY GARDEN 'TO DO' LIST

By Claudette Sims, Halton Master Gardener

Winter Sowing is a great way to start or add to your native plant garden. Learn all about winter sowing at this page on the RBG website.

**Seedy Saturdays**/Sundays are typically held in February and are great events to find seeds and information on how to grow plants. Find a Seedy event near you at <u>Seeds of Diversity</u> by setting the filter to Ontario.

**Seed Libraries** offer free seeds! Search for one near you in <u>Hamilton</u> or <u>Burlington</u>.

**Seed Starting Dates** depend on your location and what you intend to grow. Use this Seed Starting Date Calculator to determine when to start your veggie seeds. Enter May 10th as our area frost-free date. It's still too early to start your tomatoes-wait for March.

**Indoor Veggies** – Consider starting some leafy greens indoors. Good choices include microgreens, lettuce, dwarf kale, mesclun mix. Read our "Indoor Veggie Garden" blog to learn how!

**Find seeds** by searching by company name or name of seed at the Canadian Seed Catalogue Index (CSCI). There is even a map of Canadian

Seed companies at this link!

Celebrate Valentine's Day by making eco friendly choices. If you do buy flowers, ask for paper wrap, not plastic.





February 2nd is groundhog day!

Did you hear about groundhog that invisible into

Did you hear about the groundhog that drank invisible ink?



It's still at the doctor waiting to be seen.

What do French groundhogs see on

Feb 2nd?

Their 'chateau'!

**Pruning** – February to March is a good time to prune most trees and shrubs. Follow the 3 D's of pruning and remove branches that are **D**iseased, Damaged or Dead. Avoid pruning on the coldest days to minimize damage from freezing temperatures and allow wounds to heal better. Learn how to prune fruit trees in this video from Purdue Extension. Check for Black knot fungus on cherry species (Prunus) and prune when temperatures are below freezing. This will prevent black knot fungus spores from infecting the pruning wound. Inspect Pagoda Dogwood for signs of <u>dogwood golden canker</u>. Healthy stems are brown to purple and diseased ones, yellow to orange. Prune affected stems to slow the infection. If badly infected, cut the entire shrub to the ground. It will grow back beautifully in spring! Prune grapes to increase fruit production and contain their spread. Raspberries can be pruned to knee height in late February before the weather warms. Prune **crab apples** for a more open structure and remove crossing or rubbing branches and suckers at the base of the tree.

#### Digital Sowing Google Calendar for Vegetables at your Finger Tips

Elisa Bernier, Halton Master Gardeners



Wonder no more! Ferrin
Brook Farm created a great
blog on how to solve this
simple problem! We've
adapted it to Halton region.
There's now a calendar
that you can import into
your Google Calendar; it's
on the Halton Master
Gardener website available
here: Halton Master
Gardeners - events

Winter is the time for gardeners to dream, plan and prepare for the harvest season ahead. It's around this time that we start tasting the blandness of store bought produce and wondering what we can do to speed up the growing season. Sowing your own seeds is a great motivator for starting the growing season and has so many benefits. It can be a great way to experiment with growing new varieties, control how the plants are grown from germination to harvest, and get a head start on harvesting.

Despite all the perks of sowing, if we don't put the seeds in the ground at the right time, we can sometimes turn a fun activity into a headache. To avoid having seedlings that are too leggy or too small to transplant, we have to do our research and figure out the right time to get seeds in the ground. We're often flipping between our trusted resources trying to figure out what needs to be started indoors when, and what can be direct-sown outside. Wouldn't it be great if we could have all this information at our fingertips, accessible on our smart devices while we browse through the seed packet selections at the nursery?

#### Parameters Used to Create This Calendar

- The last (May 10, 2024) and the first frost date (October 16, 2024) for the Royal Botanical Gardens (Hamilton): These dates are available on Environment Canada's website. For more information on determining the appropriate last and first frost dates check out this <u>Halton MG</u> <u>blog post</u>.
- The list of plants and the growing span were collected from various sources and represent general ranges for the species listed. The sources do not represent endorsement of any particular seed company. The sources are provided below.



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#### DIGITAL SOWING CALENDAR (CONT'D)

Will This Calendar Apply to My Garden? The short answer is not necessarily. The following parameters may skew the planting time for your garden:

- The variety of the plant may require narrower or longer sowing periods prior to the first frost date. Make sure to read the labels.
- The duration of time it will take for seeds to germinate will depend on growing conditions (e.g., whether you have grow lights and heat mats, where you start the plants, e.g., outside under cold frames, etc.).

Which Plants Are Included in the Calendar? Here's a list of the vegetables and fruits included in the calendar:

- Artichoke
- Basil
- Beets
- Broccoli
- Brussel Sprouts
- Cabbage
- Cauliflower
- Celery & Celeriac
- Collards
- Corn
- Cucumber
- Eggplant
- Kale
- Kohlrabi

- Leeks
- Lettuce
- Melons
- Mustard
- Okra
- Onions
- Parsley
- Peas
- · Peppers
- Pumpkins
- Spinach
- Squash
- · Swiss Chard
- Tomatoes
- Watermelon



Can I add this Garden Calendar to my Personal Online Calendar?

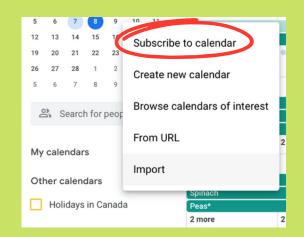
Yes, simply follow these steps:

### Adding A Calendar to My Personal Calendar

Step 1: Go to Halton Master Gardener "Event" page accessible on this webpage: <a href="https://haltonmastergardeners.com/events/">https://haltonmastergardeners.com/events/</a>. Scroll to the "Calendar to Schedule Sowing Seeds Indoors"



Step 2: Below the calendar select the "Add to Google Calendar." This should automatically open your Google Calendar and ask you to confirm that you would like to subscribe to the calendar



**Step 3:** Under "Other Calendars" you should be able to see the "Sowing Seeds Indoors" calendar.

**Step 4:** Ta da! You should have access to the calendar. You can toggle it on and off when you'd like to reference it.

#### **DIGITAL SOWING CALENDAR (CONT'D)**

There you have it! Wishing you a smooth growing season and hopefully a tool that can help take the guess work out of sowing. Your administrative work is done and it's time to get sowing!



#### **Resources:**

- · Ferrin Brook Farm
- Almanac
- Google Support
- Growing Spinach Penn State Extension
- Starting Seeds Indoors Purdue University Extension
- Vegetable & Herb Gardening Fact Sheets Rutgers
- Gardening Guides: Toronto Master Gardeners
- Growing Okra in the Home Garden Univ. of Maryland Extension
- Growing Spinach & Swiss Chard in Home Gardens University of Minnesota Extension









Advancing Community Action February 18 - 20, 2025



The **2025 Invasive Species Forum**takes place February
18-20.

Register <u>here</u> for free!

View the Preliminary Program

Congratulations to Halton Master
Gardener Cathy Kavassilis who will be presenting a talk on behalf of the
Canadian Coalition for Invasive Plant
Regulation and Master Gardeners of
Ontario.



Canadian Coaltion for Invasive Plant Regulation



Master Gardeners of Ontario



Cathy's innovative presentation "Roots of Displacement: The Legacy of Colonization and the Journey of Invasive Plants" will be one of the highlights of the forum! Don't miss it!



Thursday, Feb 20th at 9:05 a.m.

## The Healing Power of Gardening: Get Your Hands in the Dirt for a Happier, Healthier You

By Nikolina Radulovich, Halton Master Gardeners





Did you know that in any given year, 1 in 5
Canadians experience a mental illness? In recent years, Canada has witnessed a significant rise in mental health challenges. The proportion of Canadians aged 15 and older experiencing generalized anxiety disorder doubled from 2.6% in 2012 to 5.2% in 2022, with similar increases observed in major depressive episodes and bipolar disorders. As Canada faces a growing mental health crisis many are searching for natural ways to find balance.

There's something inherently soothing about tending to a garden—the earthy scent of soil, the rhythm of planting and pruning, and the vibrant colors of blooming flowers. Gardening is more than just a way to beautify your backyard; it's a simple, accessible, and effective way to boost happiness and reduce stress. Science supports this. So, why does spending time in the garden have such a powerful impact on our health? The answer lies in a combination of movement, mindfulness, and our connection to nature. Let's explore the science behind gardening's surprising benefits.

A recent comprehensive review of 40 studies found that gardeners report higher well-being scores compared to non-gardeners. Research points to the positive effects of gardening and horticultural therapy on psychological and physiological well-being, including improvements in neighbourhood cohesion, trust, and social connections. These benefits were observed across various gardening activities and interventions. Specific populations, such as individuals with dementia, mental disorders, long-term physical conditions, and older adults, also experienced improvements in their mental and physical health through horticulture-based therapy.

Many studies unanimously reported a positive impact of gardening on various mental health issues including depression, anxiety, stress, mood disturbance, and cognitive function. Other studies reported that gardening helped reduce anxiety and negative effects in individuals with mental illnesses. Horticultural therapy was shown to be effective in alleviating depressive symptoms and enhancing cognitive performance.

Beyond mental well-being, gardening comes with impressive physical health perks. For some, gardening encourages healthy behaviors like eating more fruits and vegetables and engaging in physical activity. Gardening activities have direct physiological benefits in terms of reduced blood pressure and obesity levels, reducing the risks of physical health disorders including vascular diseases, type 2 diabetes, and cancer. One study found that the risk of mental disorders' incidence among diabetes patients decreased through exposure to green and garden spaces. Tasks like weeding, planting, and watering provide low-impact exercise that strengthens joints and muscles—especially beneficial for older adults.

Gardening also fosters a sense of connection with nature, promoting positive emotions, mood, and calm. Being outdoors in a relaxed setting can help people become more mindful, build emotional resilience, and reduce stress. Research shows that spending time in nature triggers physiological responses that lower stress, and attention restoration theory suggests that it helps replenish cognitive resources, improving focus and concentration.



Continued on next page

### The Healing Power of Gardening: Get Your Hands in the Dirt for a Happier, Healthier You (CONT'D)

Gardening isn't just a solo activity—it builds connections. Many studies reported that horticultural therapy and gardening can lead to better quality of life (QoL) outcomes such as improved social relations, independent living, and positive health status. Community gardens also enhance QoL by increasing personal control, selfesteem, and social connections. These benefits were observed in both vulnerable populations and in the general public. Community gardening initiatives foster social bonds and reduce feelings of loneliness. Whether it's sharing tips with neighbors or joining a local gardening club, the sense of belonging enhances overall well-being.



The best part? You don't need a sprawling backyard to enjoy the benefits! Container gardening, balcony plants, or even tending to indoor greenery can provide similar mental health boosts. If you're new to gardening, start small—grow a few herbs on your windowsill or plant a vibrant flower bed. For those who struggle with the winter blues, try winter sowing or starting seeds indoors. LED lights used for indoor planting not only nurture your plants but also help alleviate symptoms of Seasonal Affective Disorder (SAD), bringing the joy of your garden indoors during the colder months.



So, the next time you're feeling overwhelmed, put your hands in the soil, and let nature work its magic. Your mind and body will thank you for it.





By Hariette Henry, Halton Master Gardener



I see that you have provided a photo of the pot containing both orchids and a second photo (adjacent) of a wrinkled leaf belonging to the struggling plant. Wrinkled, limp leaves in *Phalaenopsis* orchids are usually a sign of "root rot" or of a plant being consistently "too dry".

Photo: Colleen Gray

#### Plant is too dry

Incorrect watering is the most common killer of orchids; happily it is also the easiest practice to correct. Plants should be watered (usually once a week) and then not watered again until they are nearly dry. Your watering regimen can change depending on the environmental conditions in your home as humidity, light, temperature and airflow changes throughout the year.

To check for dryness put your fingers in the orchid's bark mixture. If it is dry, place the plant in a sink or tub and run lukewarm water over the plant in a series of drenches allowing the water to slowly be absorbed. Take care to avoid water splashing on the crown and leaves as this can cause crown rot. Water should drain completely before you place your plant back in its usual location.

#### Root rot

When roots are rotted, the plant cannot absorb water, leading to limpness and wrinkling of the leaves. Roots will rot not only if the plant is being watered too often, but also if the potting mix is breaking down (rotting).

I have two orchids living in the same 12" orchid pot. One is healthy and well established (7 years), the other is newer (10 months) and has droopy, wrinkled leaves. They both get watered and fed regularly and receive diffused southern exposure. As far as I can see there is no root rot or bug infestation. Any thoughts?

Plants maintain shape through water pressure and water needs to be restored in order for the plant to recover. If the roots are experiencing rot, the plant will need to be unpotted, dead roots removed, and the plant repotted in fresh media.

#### **Recommendations**

- I would suggest taking the newer orchid out of the pot and re-planting it in a pot of its own appropriate to its size. In its own pot, the orchid will not have to compete with the more established plant for water and other resources.
- Place the plant in an east window which is usually thought to be ideal, however a shaded south or west window is also fine.
- Many orchid lovers swear by clear plastic pots with slits along the side since in nature orchid roots are often exposed to light, and clear plastic pots mimic these conditions.
- If you do find decaying roots trim them and spread the remaining healthy roots over a handful of medium in the bottom of the new pot. Fill the rest of the pot with medium, working it among the roots so that the junction of the roots and the stem is at the top of the medium.
- Fertilize an actively growing and flowering plant every third or fourth watering with an orchid fertilizer according to label directions.

#### **Additional Reading**

Orchid Society at the Royal Botanical Gardens
Growing Phalaenopsis - What Can Go Wrong
Phalaenopsis Orchid Care
The Orchid Grower - Purdue University

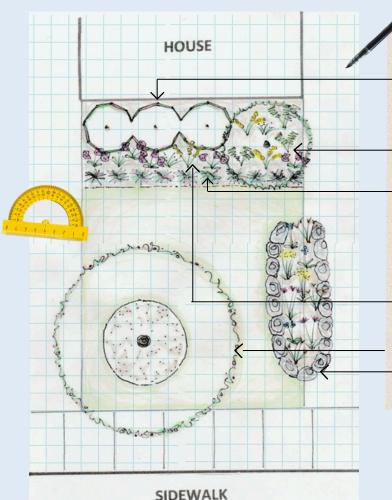


# Garden Inspiration!

## Four Sample Garden Designs

By Paul O'Hara
Blue Oak Native Landscapes

Here is one of four sample native plant garden designs based on an 18 foot by 25 foot (5.5m x 7.6m) rectangular front yard. Mix and match the designs to develop an individual design for your front yard. Plant perennials fairly densely (at least 18 to 24 inch centres) to create a richly textured garden with little visible soil and/or mulch. Click on the link below to see the three other designs.



#### Other Sources of Native Plant Designs

- Native Plant Garden Designs City of Guelph
- Native Garden Designs Wild Ones
- Native Plants for the Small Yard Lehigh Gap
- DIY Garden Designs Audubon Pennsylvania

#### PLANT SELECTIONS

- 3 foundation shrubs (suggested species include: chokeberry, American hazel, bush honeysuckle,
   Carolina rose, maple-leaved viburnum or ninebark)
- 1 foundation evergreen tree (e.g. red cedar or white cedar)
- Woodland/woodland edge perennials (suggested species include foamflower, early meadow-rue, wild geranium, marginal wood fern, false Solomon's seal, plantain-leaved sedge, bluestemmed goldenrod and white wood aster)
- A line of moss phlox on a border of grassed area for spring colour or a good spot to plant annuals
- A medium to large native tree
- Rain garden in drainage swale on shared property boundary

#### See the other designs on Four Simple Designs

Other Landscape Designers/Architects who use mainly native plants in our region:

- Sean James Consulting & Design
- Adele Pierre Landscape Architect
- Quiet Nature Landscaping
- · The Guilded Grove
- Grow it With Us Landscaping
- Kayanase Ecological Landscaping
- See more on this map

Free Admission

# By Trish Moraghan, Halton Master Gardener Growing Gn 7



Seedy Saturday at Hamilton Central Library Saturday, February 1, 2025 9:30 AM to 4 PM

Vendors, Presentations Presentations exhibits and all exhibits things seeds!







Learn more here





The Ontario Horticultural Association (OHA) encourages interest in gardening and related environmental issues with horticultural societies and like minded organizations.

**Learn more here** 



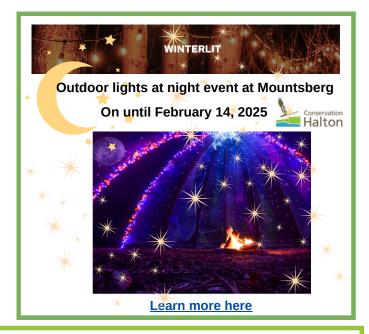


# What's Growing On?









#### **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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