HOW TO BUILD A POLLINATOR-FRIENDLY GARDEN (FROM SCRATCH!)

BY BEN O'BRIEN

GETTING STARTED

When designing any new planting, the process begins with taking stock of the existing site. This means analyzing environmental conditions such as soil characteristics (nothing works without healthy, living soils), existing vegetation, microclimate (bees prefer warm sunny locations), and the local hardiness zone.

Considering how the adjacent land is being used is especially important when choosing a location for a pollinator garden. If there is a nearby field that is routinely sprayed with insecticides, or is planted with neonicotinoid-laced crops, or you have a neighbour who is obsessive about having a weed-free lawn, it's best to keep the planting as far away as possible. Locating a garden close to an existing pollinator habitat – an old field, meadow, or hedgerow for example – will attract a greater diversity of bees since some of the smaller native species are better able to reach habitats that are close to their nests than those that are more isolated or may be beyond their flying range.

Once the site has been decided upon, it's important to prepare it properly. Eliminating existing weeds and other vegetation is necessary for the long-term success of a planting, and there are a variety of ways to do this.

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1) TILLING: relies on a regular routine of cultivating the soil through an entire growing season to break up perennial weed roots and exhaust the weed seed bank.

2) SMOTHERING: laying a few inches of cardboard or newspaper over the entire planting area and leaving it to smother the existing vegetation for an entire growing season. (This is a good way to do away with persistent, deep-rooted plants such as poison ivy.)

3) SOD-CUTTING: requires a sod-cutter that can strip off the top 2-3 inches of topsoil, thereby eliminating the weed seed bank without disturbing the underlying soil structure.

4) HERBICIDES: this is a last resort, but can be effective for persistent and hard-to-remove vegetation such as dog strangling vine – use judiciously.

Each method has its advantages and disadvantages, and the best method will often depend on the size of the planting, time, labour, and money.

Whether the soil is sandy and dry or clay-based and sticky, there are a range of excellent plants for pollinators that can thrive in these conditions. Unless your soil is lifeless fill (on a new building site, for example), drastic soil amendment with compost, triple mix or some other additive generally isn't necessary. Unlike in vegetable gardening, rich black soils can actually be detrimental since they encourage aggressive weedy species that can overwhelm more desirable plants and reduce the most important criteria of a welcoming pollinator habitat: floral diversity.

Once the site has been thoroughly prepared, the planting can begin.

PLANTING METHOD

Your ultimate vision for the garden will determine the best planting method. If informality and wildness are what you're after, starting from seed makes the most sense – it allows for a high degree of spontaneity and serendipity. The plants will sort themselves out, each colonizing their own niche, and resulting in a planting that is unpredictable and joyfully chaotic. On the other hand, planting container-grown plants allows for complete creative control over the composition; you determine the amount of variety, the specific combinations, and the degree of formality. There are advantages and disadvantages to both methods.

Starting a garden from seed is much cheaper and less labour intensive than planting container-grown plants, but it also involves more careful management in the early years (such as targeted mowing to eliminate unwanted weeds) and a longer waiting period for plants to reach maturity – seeded meadows may not flower profusely until their third year.

The most important goal is to ensure a continuous succession of blooms from the earliest days of spring through the last days of fall. By planting a diverse community of wildflowers and shrubs, you can ensure that once a plant is finished blooming, another one will take its place. In achieving this succession of bloom we can create a steady supply of food and a well-stocked food source for local bees, as well as a stunningly beautiful garden that can inspire and amaze the people who encounter it.

PLANT SELECTION

Ontario is blessed with an aesthetically and ecologically diverse native flora that can delight and inspire while also providing valuable forage for bees and other pollinators from the moment the buds break in spring until the leaves crunch underfoot in autumn.

In the accompanying list, I've focused primarily on selecting species that are commercially available at Ontario nurseries. In some cases, in the interests of brevity and variety, one plant has been chosen (for example, *Liatris aspera*) from a larger family in which there are numerous other beneficial varieties (such as *Liatris spicata, Liatris pycnostachya, Liatris ligulistylis*) and cultivars (*Liatris spicata* 'Kobold').

I've intentionally omitted the various clovers, vetch, alfalfa, birdsfoot trefoil, and other agricultural forage crops – although good options for a wildflower pollinator garden, they are aggressive and may become a nuisance over time. The same goes for Goldenrod (*Solidago canadensis*), a plant bees rely on in late summer through early fall, but which can become invasive in a garden setting.

It was not my goal to compile an exhaustive plant list – rather, my hope is that my recommendations will spark your creative process and stimulate interest in finding new and unconventional plants. This is, after all, meant to be a joyful endeavour – a perpetual work-in-progess. I've also included some web resources that will provide an expanded list of ideas and options, as well as sources for the purchase of seeds and native plants.

In my work, I try to create places that embody a cooperative relationship between people and wildlife. Far from being a 'specialist' line of work, I believe we all have a role in the design, cultivation and stewardship of the landscape. In Prince Edward County where I live, the Bee-Friendly landscape movement is gaining momentum. I'm hopeful that this is the beginning of a societal shift where people are less motivated by the conquest and control of the natural world and more keen to create beautiful, diverse, and ecologically restorative habitats that enrich the human experience as much as they enrich the lives of bees, birds, butterflies, and the wider web of life.

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RESOURCES

Find Ben's complete list of bee friendly plants on our website at ontariobee.com

NATIVE PLANT DATABASE

Lady Bird Johnson Wildflower Center
www.wildflower.org/plants

ONTARIO NATIVE PLANT NURSERIES

St Williams Nursery and Ecology Centre
www.stwilliamsnursery.com

Grand Moraine Growers
www.grandmorainegrowers.ca

Fuller Native and Rare Plants
www.fullerplants.com

Grow Wild Native Plant Nursery
www.nativeplantnursery.ca

Wildflower Farm
www.wildflowerfarm.com

Ferguson Forest Centre
www.seedlingnursery.com

Wheatley Woods Native Plant Nursery
www.wheatleywoods.com

OTHER HELPFUL WEBSITES

Honey & Pollen Plants for Ontario's Beekeepers
http://newsite.pollinator.ca/plant_ontario/

BOOKS

Attracting Native Pollinators: The Xerces Society Guide to Conserving North American Bees and Butterflies and Their Habitat by the Xerces Society

Principles of Ecological Landscape Design by Travis Beck

The Living Landscape: Designing for Beauty and Biodeversity in the Home Garden by Rick Darke and Douglas W. Tallamy

Bringing Nature Home: How You Can Sustain Wildlife with Native Plants by Rick Darke and Douglas W. Tallamy

Prairie-Style Gardens: Capturing the Essence of the American Prairie Wherever You Live by Lynn Steiner

BEN'S Top 10 BEE PLANTS

Wildflowers

***AGASTACHE FOENICULUM* (ANISE HYSSOP)**
A black-liquorice scented purple wildflower with upright spires that make a lovely winter silhouette. Will seed itself around, but not to the point where it becomes a nuisance.

***ASCLEPIAS SYRIACA* (COMMON MILKWEED)**
Larval host of the Monarch butterfly. Sweetly scented flowers and fluffy seeds that dance on the slightest breath of wind – what more can you ask for?

***ECHINACEA PURPUREA* (PURPLE CONEFLOWER)**
This iconic North American wildflower is a long bloomer and a magnet for bees and butterflies. The spiky flower heads endure right through the winter months and hold snow beautifully.

***LAVANDULA ANGUSTIFOLIA* (LAVENDER)**
Though not an Ontario native, lavender is one of the toughest garden plants, deliciously fragrant, and loved by honey bees especially.

***LIATRIS LIGULISTYLIS* (MEADOW BLAZINGSTAR)**
A recent introduction to my own garden, and has quickly become one of my favourites. One day last summer, I counted four Monarchs on one plant. Soft purple spikes of flowers bloom from the top down.

***MONARDA FISTULOSA* (WILD BERGAMOT)**
Another tough plant with soft pink flowers in mid-summer. Fragrant foliage can be vulnerable to powdery mildew, but that's no excuse to pass it over. Hummingbirds won't be far behind.

***PYCNANTHEMUM SPP.* (MOUNTAIN MINT)**
Mountain mints can be a bit thuggish in a garden, but they're too good to avoid. While in bloom in late summer, plants are absolutely vibrating with insect life.

***SILPHIUM SPP.* (CUP PLANT)**
Towering prairie plants with long lasting yellow flowers and seeds that are loved by birds. S. terebinthinaceum has striking tropical-looking basal leaves and long, unbranched flower stalks.

Shrubs

***AMELANCHIER SPP.* (SERVICEBERRY)**
Serviceberries are as close to the ideal shrub as you can get. Soft white spring flowers followed by edible purple berries (you'll have to fight the birds to get them) and orange-red fall foliage.

***CERCIS CANADENSIS* (REDBUD)**
Redbuds bloom before the leaves emerge, making a stunning picture in spring. Not reliably hardy above Zone 6, so if you can grow them count yourself lucky (and grow as many as you can).