

SEASON OF CREATION

CREATING A POLLINATOR GARDEN

ACTION ACTIVITY

GOALS

This activity is centred on action. The benefits to the Christian community upon completion include:

- more beautiful church grounds that make the church members' love for Creation visible to the neighbourhood;
- creation of new habitats for the numerous insects such as butterflies and bees attracted to the flowers the community planted;



- greater awareness among the faithful of our closeness to the land and increased motivation to care for it;
- church members will learn the importance of insects and our links with them.

Equipment

Planting Materials:

- Seeds

- Plants









THE BIG PLANTING DAY



The success of this activity, like so many others, is in the preparation. Our goal is that families can come, participate, learn and help make this project a great success. In order to do so, the key will be having enough volunteers, space and materials.

The location of your site can be any available land that your church may have. A yard or lawn that is otherwise unused is perfect. Addressing some basic issues will make sure your event is a success.

CREATING A POLLINATOR GARDEN

- Shovels - Spades - Sprinklers - Gloves

Educational Materials

- Magnifying glass
- Small containers (reused yogurt containers are great!)
- Insect Identification guide
- Plant identification guide

Duration About 2 hours – plus as much time as you'd like as the garden grows

Location

A small (or large) outdoor space where you can start your garden



PREPPING FOR THE BIG DAY

a)<u>Sunlight:</u> even a shady site is ok, but make sure to note how many hours of sunlight you have per day and choose your plants accordingly

b)Water: knowing how much water your site gets naturally can help you better plan maintenance. Remember native species are adapted to your climate and will probably need less maintenance

c)Soil: take a good look at your soil and determine if it is ready to be a garden. This easy soil test will help you determine what may need to be done. Be sure to obtain compost, manure or peat moss to get the soil as ready as possible:

https://www.bhg.com/gardening/yard/mulch/evaluate-your-soil/

d)Plants: choosing the right plants for the big day is key. Be sure to choose a mix of plants that flower throughout the year to provide nectar and pollen to all the native pollinators from Spring to Fall. See Annex 3 for some ideas and a link to a thorough guide on native plants in your area.

e)<u>Plan:</u> make a simple map of your garden and where things will be planted. This will help you and the volunteers as you work together. Annex 4 is an example



LOCAL POLLINATORS



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STEP THAT LEADS TO SEED
FORMATION AND FOOD
PRODUCTION, IF THE PLANT IS
ONE THAT PRODUCES FOOD.

PLANTS CANNOT MOVE, SO THEY
RELY ON WIND OR WATER, OR
ANIMALS (MAINLY INSECTS)
THAT WE CALL POLLINATORS, TO
TRANSFER POLLEN FROM THE
MALE PARTS OF FLOWERS TO THE
FEMALE PARTS OF FLOWERS.

POLLEN GRAINS ARE THE MALE
GENETIC MATERIAL OF A PLANT,
AND POLLINATION IS ALL ABOUT
HOW POLLEN IS TRANSFERRED
TO THE FEMALE PART OF

THE PLANTING DAY

Welcome and introduction (20 mins)

• What is pollination? (5 mins)

Explain that pollination is 'the vital first step that leads to seed formation and food production, if the plant is one that produces food. Plants cannot move, so they rely on wind or water, or animals (mainly insects) that we call pollinators, to transfer pollen from the male parts of flowers to the female parts of flowers. Pollen grains are the male genetic material of a plant, and pollination is all about how pollen is transferred to the female part of flowers.'

(https://beecitycanada.org/why-help-pollinators/what-is-pollination/)

Our pollinator garden (10 mins)

Explain that a pollinator garden is a garden with the goal of providing nutritious plants to pollinators including bees and butterflies. You can then describe

the garden you will be planting and the plants you have chosen.

(https://beecitycanada.org/why-help-pollinators/what-is-pollination/)

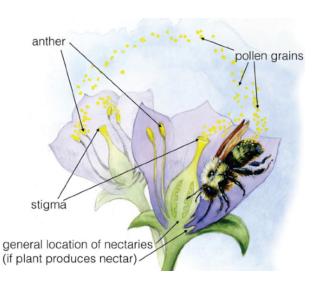
Stage one: Prepare the soil (30 mins)

During this first stage participants can take out the weeds, turn over the soil and mix in the compost, manure and/or peat moss you have provided. This will get everything moving and doesn't have to be too precise. Once everything is cleaned up, turned over and ready to go you can move on to the next step

Stage two: Group work (30 mins) Now that your garden is ready to be planted you can break out into a few groups. In our example here, we have 3 groups

Group A: Trees, shrubs and big plants

Group B: Small plants Group C: Bulbs, seeds





GREAT PLANTS FOR POLLINATORS



A POLLINATOR GARDEN IS A
GARDEN WITH THE GOAL OF
PROVIDING NUTRITIOUS PLANTS
TO POLLINATORS INCLUDING
BEES AND BUTTERFLIES..

Each group can organise as they would like but, remind them that it will be their responsibility to explain what they've planted once they're done. The time necessary will depend on how many people you have and the size of your garden.

Once all the plants are in the ground have each group talk about the plants they planted and explain what they provide pollinators and what they will look like in the Spring. Between those that have experience and those that have smart phones, they should be able to find the information they need.

Stage Three: The Details (30 mins)

Now that everything is in the ground, you can deal with the details and add any extras that you'd like. Those people that are interested can mulch around the plants to keep the weeds down, place signs indicating the plants or teaching about native pollinators or even install pollinator homes or hotels. There are some great ideas for pollinator homes here:

https://www.foxleas.com/make-a-bee-hotel.asp

As you finish up, it is a good moment to thank everyone for coming out, thank God for the community, the pollinators and the plants. Finally give your new garden a good watering and watch it grow

Notes:

This is a good activity for the Fall or the Spring but keep in mind a few things depending on the season.

- Most bulbs are planted in the fall for Spring blooming
- Many plants can be planted in the fall but they will really take off in the Spring. This means you are prepping your garden now for next year.
- Leaving sticks, leaves and sticks on the ground in your garden is a great way of providing habitat for bugs and pollinators. Because this gives a more wild look, its worth putting up a small sign explaining.



ANNEX 1: LETTER REQUESTING SUPPORT

Dear Mr. Green,

I am writing to you today to invite The Green Thumb horticultural centre to be a sponsor of the planting of a pollinator garden in front of Saint Francis of Assisi Church in Sudbury. Our activity will take place on September 1st 2019 and the support of your business would greatly help to make it a successful event. Members of our community will plant a variety of plants and flowers to encourage pollinators to visit and move into our garden. As passers-by and the people of the neighbourhood admire the garden and the educational signs in the Spring and over the summer, they will see how our community is engaged in protecting and encouraging local species.

We would like to let the members of our community know that your horticultural centre made it possible for us to develop this project. If you would like to make a donation or perhaps provide some pollinator plants gratis or at a reduced price, we would be happy to post your company's logo on our property so that passers-by can recognize your support. Your generosity (along with your contact information) could also be acknowledged in our church bulletin and on our website.

It would be my pleasure to discuss with you all the details regarding your donation.

Thank you very much for taking the time to consider our request.

Please accept, Mr. Green, my best regards.

Marguerite Bloom Planting Committee 438-123-4567



Appendix 2 : Some local Pollinators

While we often talk of the European honey bees, we can easily forget the local species of bees we have here in Canada. Here are six types of local pollinators that help our native species and our gardens to produce and reproduce.

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Bumblebees

These fuzzy local bees are great pollinators and while they have a stinger are extremely docile. Bumblebees nest in the ground and can have colonies of up to 500 individuals. Bumblebees also have pollen pouches on their back legs to transport the pollen they have collected.

These native bees are often used for pollination in greenhouse for tomatoes and peppers as well as in fields of blueberries, strawberries and apples.



Mason Bees

Mason bees are important pollinators to fruit tree crops, such as apples. They are easily attracted to artificial nesting sites such as wooden blocks with holes drilled in them. They nest alone in long, narrow spaces like hollow plant stems. They lay several eggs, each in its own chamber, with walls made from mud or chewed leaves. Offspring may overwinter in these chambers and emerge as adults the following spring. They transport pollen on their abdomens thanks to their copious fur.



Carpenter Bees

These semi-social bees dig tunnels and galleries in tree stems and wood. The eggs are laid in succession and separated by partitions.

Because of their large sizes, these bees are often confused with bumblebees, but what's the difference? They don't have pollen baskets on their legs!



Sweat Bees

With their bright green head and thorax and their black and white striped abdomen, these bees are easily identifiable.

Agapostemon nest in the ground and the nest entrance may be shared with other females.

A certain collaboration is sometimes noticed among the females, with some leaving to search for food while others stay to guard the nest.



Monarch Butterfly

Native from British Columbia to Newfoundland.

Adult monarchs feed on all sorts of flowers, but they only lay their eggs on milkweed.

They drink from blooms with open or deep flowers. Their pollination services come into play as pollen gets on their legs and body when they land and drink, helping the transfer of pollen from flower to flower.



Silvery Blue Butterfly

This beautiful insect does "mudpuddling" to get nutrients from damp earth. You may also see them on low-growing flowers in moist areas in a variety of habitats. They drink from blooms with open or deep flowers.

As caterpillars, they provide ants with a sweet liquid secreted from their skin. The ants, in turn, protect the caterpillars from predators and parasites.



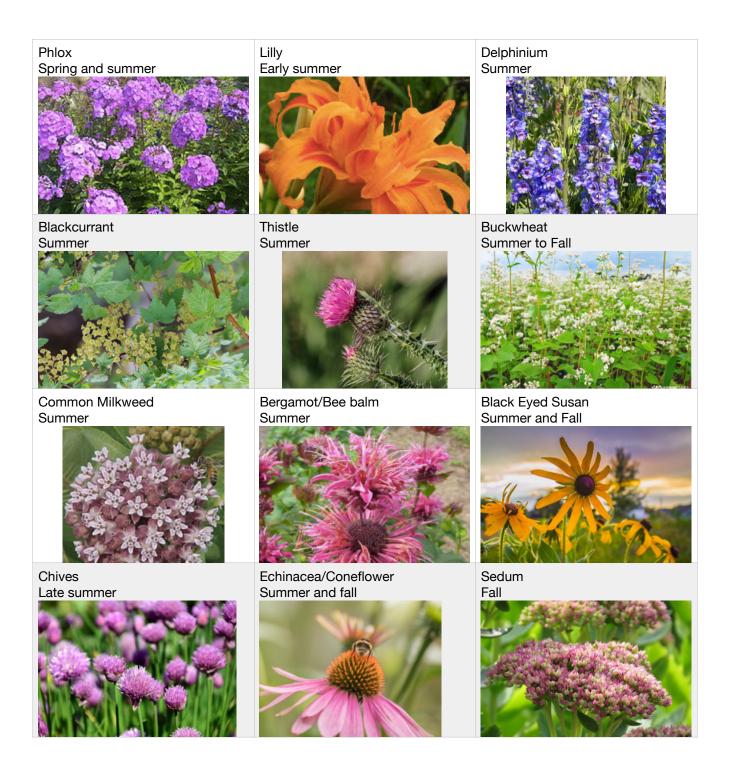
D. Gordon E. Robertson



GREAT PLANTS FOR POLLINATORS

Appendix 3: Some great plants for pollinators

Most of these plants will be well known to you, though they are only a few of the best plants for pollen and nectar. For a more detailed list according to your bioregion visit: https://www.pollinator.org/guides



References

The materials made available to you by the Green Churches Network are the result of research and adaptation from many sources. The many sources include:

Bee City Canada https://beecitycanada.org/why-help-pollinators/what-is-pollination/

Canada Wildlife Federation – A Canadian non profit with the mission of conserving and inspiring the conservation of Canada's wildlife and habitats for the use and enjoyment of all. Their pollinator resources have been quoted from in our guide.[http://cwf-fcf.org]

Miel Montreal – A beekeeping cooperative based in Montreal with a focus on pollination and pollinator health. They have provided information and photos [mielmontreal.com]

Pollinator Partnership – A non-profit with a mission to promote the health of pollinators, critical to food and ecosystems, through conservation, education, and research. Their pollinator plant guides by bioregion can be found here: [https://www.pollinator.org/guides]

The Pollinator Garden – A site dedicated to pollinators and pollinator homes [https://www.foxleas.com/make-a-bee-hotel.asp]

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