

Alberta Native Plant Council

Pollinator Garden Challenge

Toolkit



SHARING KNOWLEDGE,
SUPPORTING CONSERVATION



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WELCOME TO THE ANPC POLLINATOR GARDEN CHALLENGE!

The Alberta Native Plant Council invites you to plant a plot for pollinators. Help us increase the use of native plants in Alberta by growing native plants in your own yard. Whether you are new to gardening or a seasoned veteran, we hope you find the information inside this toolkit useful. Dedicate a small section of your yard to growing native plants this season and watch the pollinators arrive!

Why grow native plants in your yard? Growing native plants is not difficult – they often require less care than other ornamental plants because they are better suited to growing in the local environment. Seeds from your garden may be spread by wind, water, and wildlife, helping establish native plants elsewhere and maintain local populations and genetic diversity. Native plants provide food and shelter to wildlife, including a wide variety of insects that are an important source of protein for many other animals. Some of these insects are completely dependent on native plants for their survival. For more information, consult the Canadian Wildlife Federations website at [Why Grow Native Plants](#).

Inside this toolkit you will find resources to help you create a native plant garden. This includes resources for:

- planning and preparing your garden
- sourcing and selecting native plants
- planting
- maintaining your garden
- growing native plants and attracting pollinators

When your pollinator garden blooms you want plenty of insects around to enjoy your hard work! The Xerces Society has an excellent guide of features to include in your design to [provide nesting and overwintering habitat for pollinators](#). ♪



SCHEDULE

March	Kickoff: Registration opens on our website
March-May:	Plan and prepare your garden <ol style="list-style-type: none"> 1. Draw a base map 2. Source seeds/plugs 3. Start seeds indoor 4. Prepare soil 5. Share your garden on the first of each month
May Long Weekend:	Start planting. Add mulch
May-Sep:	Maintain your garden. <ol style="list-style-type: none"> 1. Water frequently as plants get established. 2. Pull weeds. 3. Watch for pollinators. 4. Take pictures of your progress 5. Share your garden on the first of each month
Sep-Nov:	Collect Your Seeds/Share Events. Plant more seeds before the snow flies
Winter Wrap Up:	Share your success and failures in our Facebook group. Post ideas for next year.



PLANNING

As with any garden, planning and preparing your garden space increases the likelihood that your native plants will thrive. Whether you decide to plant a garden in the ground or in containers, knowing the environmental elements of your space increases the likelihood of successful growing.

The planning process starts by developing a base map (Figure 1). A base map can be as simple as a series of bubbles shaped to indicate how your yard is currently designed, or a fully detailed, drawn to scale design. The more time you take to consider the environmental influences in your yard, the better equipped you'll be to choose plants that will grow as they should.

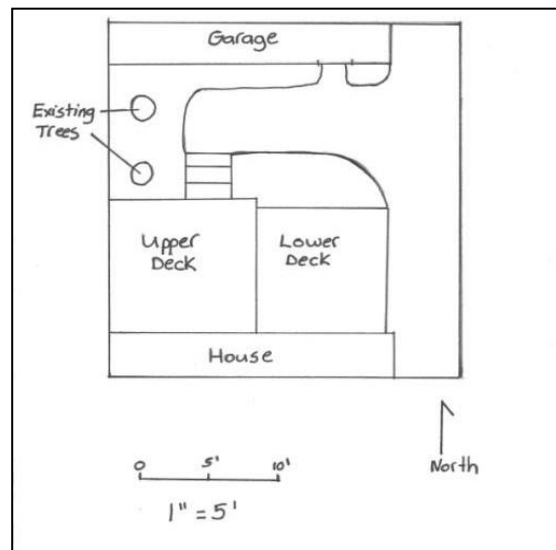


Figure 1. Base Map with existing features

How to Prepare a Base Map

- Mark existing structures such as your house, garage, and shed
- Include hardscape features such as the driveway, sidewalk, decks, patios, walkways, fences, and playsets
- Include softscape features such as existing trees, shrubs, lawn and garden areas
- Include any areas of future development that do not currently exist
- Put a directional North arrow onto your drawing

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- Locate where you want your native plant pollinator garden
 - ❑ Do you have space within an existing garden, or will you be creating your garden from scratch?
 - ❑ Will you be removing sod or other plants to make room for your native plants?
 - ❑ What is the actual size of this area?
- Analyze your site to determine how it is influenced by the sun
- Mark areas of full sun (at least 6 hours), part sun (4-6 hours), and shade
- Mark dry and wet areas, and record drainage patterns
 - ❑ Include existing grades and direction of existing drainage
- Indicate wind patterns

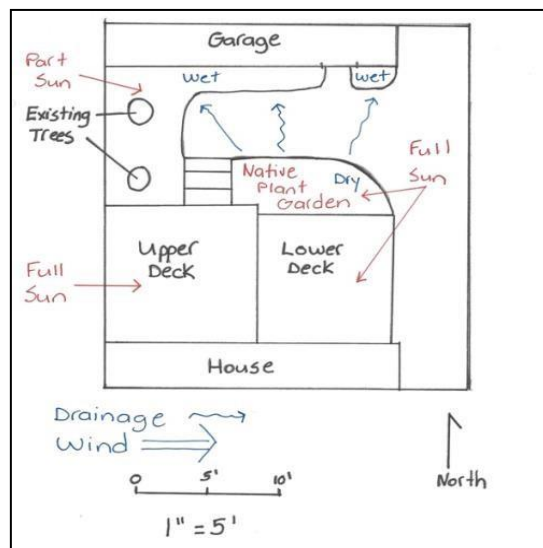


Figure 2. Completed base map

- Determine your plant hardiness zone by checking your location on the [Plant Hardiness Zones of the Prairies](#)
- Determine where your utility lines are located by contacting Utility Safety Partners (formerly Alberta One Call) at [Click Before You Dig](#)



- Other factors to consider:
 - ❑ How much time do you have for weeding, especially early in the season when weeds will outcompete your native plants?
 - ❑ Where are taps/rain barrels/sprinkler heads located?
 - ❑ What is your budget?

For more information on planning your garden, see these resources:

[Xerces Society for Invertebrate Conservation](#)

[Alberta Native Bee Council](#)

[City of Calgary's Plan your YardSmart yard and garden](#)

[City of Edmonton's Planning and Designing a Natural Yard](#)

[Edmonton Native Plant Society](#)

[CMHC Landscaping Guide for Canadian Homes](#)

[Naturescape British Columbia](#)

[Iowa State University - Bubble Diagrams](#)



SOURCING NATIVE PLANTS

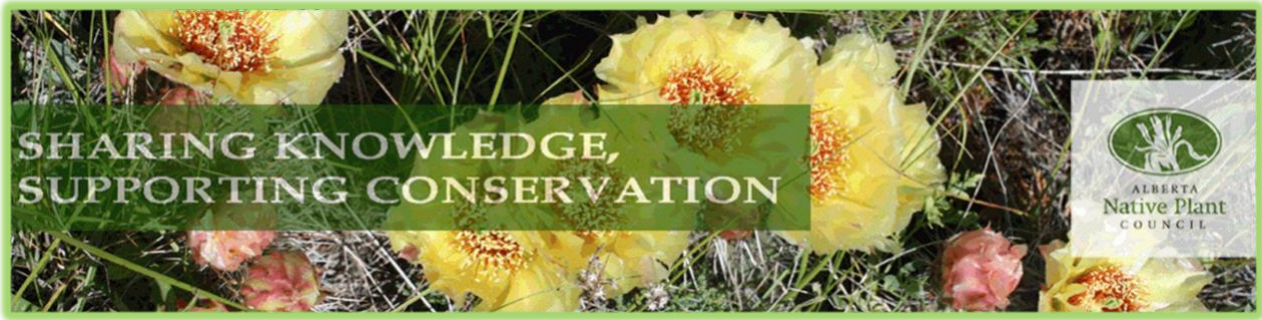
Not all native plants are available for purchase every year. If you need to purchase native plant material, determine what is available in your area by contacting suppliers from the ANPC Native Plant Source List, available to download on this page [Growing Native Plants](#).

Here are some questions to ask suppliers:

- Given the environmental conditions of your garden (sunny, part sun, shade, wet, dry, etc.), and [plant hardiness zone](#) what plants do they recommend?
- What do they have available?
- Are there any special requirements for the seeds/plugs?
- When can the seeds/plugs be planted?
- What are the plants growing habits? Do they spread by underground rhizomes or produce many seeds that may spread elsewhere?
- When will the plant material be delivered or be picked up?

When selecting your plants, consult your base map.

- In general, gardens located in front of structures like fences and exterior walls should have tallest plants at the back, and shortest in the front
- Island beds should have tallest in the middle of the bed, and shortest at the edge of the bed
- Consider planting odd-numbered clusters of plants rather than rows. This is usually more aesthetically pleasing and allows pollinators to expend less energy by not having increased distances to travel between sources of nectar
- Do not plant invasive species! There are some non-native species that look similar to our native plants, and if grown can escape into natural areas and out-compete native populations. Refer to the [Alberta Invasive Species Council website](#).



SUPPLIER DISCOUNTS FOR THE CHALLENGE

(Note: Some suppliers require proof of ANPC membership/participation in the Challenge, up-to-date details posted on the [Garden Challenge page](#).)

[Blazing Star Wildflower Seed Company](#) (Aberdeen SK): 15% off the pollinator garden kit and our wildflower seed packs with a \$10 or more purchase. **If ordering online please use discount coupon code POLLINATOR2023**

(The 'Pollinator Garden Seed Collection' includes individual seed packets of Prairie Coneflower, Smooth Aster, Gaillardia, Purple Prairie Clover, Bergamot, Black-eyed Susan, Stiff Goldenrod and Giant Hyssop. Comes with a mini booklet that includes a sample pollinator garden layout, instructions, and tips for creating your own pollinator garden.)

[ALCLA Native Plants](#) (Calgary): 5% off orders of live plants up to a maximum of \$500

[Arnica Wildflowers](#) (Edmonton): 20% discount

[Wild About Flowers](#) (Okotoks): 15% discount

(Want to fast-forward your Pollinator Garden?! You can order packages of native plant species specially selected for pollinators.... from \$120 (for 20 plugs) to \$528 (for 88 plugs). [Details here](#)

[Medieval Manor Gardens](#) (Stony Plain): 25% discount on native plants - does not apply to any delivery charges.

[K & S Growers \(Vulcan\)](#): 10% off live plant materials over \$100

A list of suppliers who are offering a discount to participants in the Challenge is also available on the [Garden Challenge](#) page on the ANPC website, along with details of the discounts.



STARTING SEEDS INDOORS

Some native plant seeds can be started indoors 6-8 weeks prior to the last frost date for your area. The easiest seeds to start indoors are those seeds that do not need any type of pre-treatment to break dormancy.

Begin by using clean containers that have drainage holes in the bottom. Use containers that are at least 8 cm deep to accommodate seedlings that develop long tap roots. Fill containers with sterile, soilless, seed-starter mix. You can make your own (plenty of recipes online) or buy a commercial mix. For choice choose peat-free mixes. Do not use garden soil when germinating seeds indoors because it is heavy, does not drain well, and may contain weeds and pests.

Read the seed package to determine

- if your seeds need darkness or light to germinate
- if they need bottom heat
- how much soil to cover your seeds with
- how many days it takes for seeds to germinate
- if your seeds require any type of treatment to break dormancy

Sow the seeds sparingly to allow air to circulate around each tiny plant. This helps prevent fungal disease from growing. Keep the soil moist, but not soggy. Use a spray bottle to gently water the containers. Place seedlings by a bright window or add artificial light if required and watch for germination. Seedlings will grow towards the light source, so turn the containers regularly.

When seedlings have 1-2 pairs of true leaves (not the first leaves to emerge when seeds germinate), they can go outdoors if the temperature permits it. Slowly acclimatize young plants to the outdoors by placing them in the shade for about three days and bringing them inside at night. Increase exposure to outdoor conditions including sunlight and wind slowly over the next two weeks, and transplant into your garden space when frost is no longer a concern.

More detailed information and tips for success are available on the [ALCLA Native Plants](https://www.alcla.org/ALCLANativePlants) website.



PREPARING YOUR BED FOR PLANTING

You can begin preparing your garden bed once the frost has left the ground, usually in late April or early May. Incorporating organic matter such as compost or well-composted manure before planting usually improves plant establishment and growth. Adding organic matter increases water and nutrient availability, and decreases irrigation needs. To add organic matter, spread an 8 cm (3 inches) layer on the surface of the soil and dig it in to a depth of 10-15 cm (4-6 inches) for seeds, or 15-30 cm (6-12 inches) for shrubs.

PLANTING

Seeds:

Follow the instructions for planting on the back of your seed package. These will tell you

- When to plant
- Seed depth (how deep to plant)
- Seed spacing (how far apart to place the seeds)
- Days to germination
- Final plant spacing

Plugs and Containers:

In general, dig a hole two times as wide as the plug or container. Dig the hole deep enough to allow the top of the root ball (base of the stem) to sit even with ground level. Fill in the hole to ground level with the surrounding soil. Firmly tamp soil down. Water enough to allow soil to settle and add more soil to the planting hole if necessary.

To help prevent moisture loss and weed growth, apply a layer of mulch after planting. Keep the mulch 3" away from plant stems to help air circulate and prevent disease and stem rot, and leave some patches of bare soil in sunny areas for ground nesting bees.

Mulch can be bought – but if you wait till after apples and pears have blossomed most bees overwintering in the leaf litter will have emerged ([Xerces Society](#)) and you can rake up fallen leaves and use these. If the leaves are small and form a light, open layer that allows air circulation, you can use them whole. Large leaves or leaves that take a long time to decompose (like oak leaves) will need to be shredded or broken up in some way. (The internet has lots of suggestions on different ways of doing this.)



MAINTAINING YOUR GARDEN

There are two main tasks for newly planted gardens: watering and weeding. For the first 6-8 weeks after planting, you will need to supplement rainfall with enough additional irrigation to ensure the soil in your garden is consistently moist, but not soggy. Watering in the morning is preferable to reduce water loss through evaporation. The most efficient way to water is by using a soaker hose that applies the water slowly at soil level. When watering, be sure to water the soil, and not the plant to help prevent disease.

It's important to remove weeds on a regular basis. Weeds will grow more quickly than native plants and will compete for water and nutrients. Pull weeds by hand rather than use chemical herbicides which will harm pollinators and wildlife. If you are wondering if what you are looking at is a weed or one of your new plants Calgary Horticultural Society has a [description of 'volunteer' plants](#) that frequently appear in gardens, and [Saskatchewan Wildflowers](#) has photos of native plants at early stages of development (e.g. before flowering) to help in identification. For information on regulated weeds visit the [Alberta Invasive Species Council](#).

Pests

Remove unwanted insects by hand instead of using chemical herbicides. Welcome signs of invertebrates feeding on your plants! You are building a food web in your garden. With more plant-eating insects, more of their invertebrate predators will show up - ladybugs, lacewings, hoverfly larvae, spiders and parasitic wasps – to control the plant-eaters. With more insects, more birds will arrive to feed on them. A plentiful supply of caterpillars is essential for nearly all our native birds to raise their young – a pollinator-friendly yard is also a bird-friendly yard.

Share Your Garden!

Remember to take photos of your garden regularly. Post and share your photos and stories in our private Facebook group. Take photos of pollinators on your plants and upload to [iNaturalist ANPC Pollinator Garden Challenge](#) page. iNaturalist will help you identify the species you see and your observation will contribute to our understanding of the role native plant species play in supporting pollinators.

If you need help or advice join the (private) Pollinator Garden Challenge FaceBook group and post your questions, and remember to check the [Members page](#) for announcements and information.

Happy Native Plant Gardening...

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