

Backyard biodiversity

Growing plants for pollinators

You can support pollinators and other native wildlife by planting native flowering plants. Native plants can be grown to help restore pollinator populations, create patches of wildflowers in yards or roadsides, enhance ornamental gardens, protect your vegetable gardens with beneficial insects, and more!

Things to consider...

Associations with native plants

Pollinators and plants have evolved together. Focusing on using plants that are native to your region will help the amazing diversity of pollinators in your area.

Moist soil and water

Some pollinators get all they need from flowers' nectar, but others need clean water to drink and moist soil in order to access necessary minerals.

Host plants for moths and butterflies

Caterpillars live on and eat the soft tissue of plants before they turn into adult moths and butterflies. Often, these caterpillars specialize on a very specific type of plant, known as a host plant. A wide range of host plants means a wide range of moths and butterflies that can thrive in a habitat.



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**POLLINATOR
PARTNERSHIP**

Pesticide-free areas

Pollinators need areas that are free from harmful pesticides. Try to not use any chemical pesticides in your habitat and if you do need to use a chemical treatment, read and follow the label directions. A natural alternative to a common problem is to use soapy spray to manage aphids. However, try to use only if the problem becomes significant, as of course most creatures play a valuable part in the ecosystem!

Nesting and overwintering areas

Pollinators lay their eggs in a range of different nesting sites, from intricate below ground tunnels to the canopies of trees. A healthy habitat can accommodate the various structures that pollinators need.

Invasive species

Remove and never plant invasives so that the plants pollinators need have room to thrive. Non-native plants that take over a yard will crowd out beneficial native species and often provide little resources for pollinators. Search online for what invasive species are present in your area.



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Continuous bloom throughout season

Different pollinators are active at different times of the year. A healthy habitat has plants that bloom throughout the period when pollinators are active.

Leave wild areas of vegetation, leaf litter, and brush

Take inspiration from the natural areas around you and avoid overly-manicured landscaping. Letting patches of your yard simply grow and bloom can provide shelter and food for insects and wildlife. This allows the plants in your yard to provide resources for hungry pollinators throughout the season.

Creating a pollinator habitat

Step 1: preparing your site

To create a pollinator habitat, you will need an area that has bare soil, which may involve removing weeds or grass, thinning out existing plants, or removing or pulling back mulch (soil coverings such as wood chips or leaves).

If you want to create a new garden area in a place that is currently weedy or turf grass, then you have many options to prepare your site for wildflowers.

Here are two quick ways:

- 1 Strip the sod/grass or hand weed the area. Plant into bare soil.
- 2 Cover the area with cardboard or other biodegradable layers to kill underlying vegetation and break down while your plants get established. If you use compostable layers such as non-coated cardboard or paper with a two or three inch layer of weed-free soil on top, then you can plant or sow seed right away.



If you are planning to create habitat in pots, very little preparation is needed. Make sure you have some pots with soil, and you are ready to go! You can check with your local garden center if you are not sure what type of soil your plants need to thrive.

Here is another way that requires more planning:

- 1 Smother the area for at least four months by laying down something that blocks light, for example cardboard, landscape fabric, or a dark colored tarp.
- 2 Remove the barrier when it's time to plant and carefully remove any undecomposed dead vegetation while reducing soil disturbances. By being careful not to disturb the soil in the smothered area, you will reduce weed seeds that are buried in the soil from coming to the surface where they can germinate and cause weed problems.
- 3 Plant into bare soil.

Creating a pollinator habitat

Step 2: planting your garden

Selecting plants: Native plants use less water and are adapted to local weather patterns and support locally native pollinators. Non-native but non-invasive plant species can also provide benefits. Wildflowers, grasses, shrubs, vines, and trees can all be beneficial, so choose what fits your site best. If possible, aim for a mix of plant structures, a range in bloom times, and diverse flower shapes/colors.

	Seeds	Plants
Cost	Less expensive, good for large areas.	More expensive, good for smaller habitat or for larger habitat mixed with seed.
Coverage	Can fully cover an area; plants will come up in all places.	Plants spaced so that as they grow to maturity, they fill in the area. Empty spaces around plants before they mature. Bare ground can be mulched with wood chips, straw, leaves, or other natural materials to keep weeds down.
Planting time	More sensitive to timing; fall (before rainy/cold season) is best, but early spring can also work. Do not sow seeds in the late spring or summer.	Can be planted any time of year, but if planted during the dry/warm season, they will need to be watered frequently for the first year. Plants in pots will need frequent watering throughout their life, as soil tends to dry out more quickly in small areas.
Establishment	Takes 2-3 years for good establishment; annual plants with flower the first year, perennial plants will take 2-3 years to establish roots and flower.	Can result in a great looking garden as soon as planted and gets better over time as plants grow.



You can create your pollinator habitat with seeds or with plants that are in pots. Pick one or the other or use both to create your habitat.



Seeds or plants?
The best time to transplant or sow seeds in most places is during the fall, before winter weather. Seeds can be sown in the early spring as well. Some seeds need an overwintering period (stratification) in order to germinate, but many native plant seeds will do just fine sown in the fall, winter, or early spring, but this depends on the climate in your region.

Seeds sown in the late spring or early summer won't do that well as it's not the normal time for them to be out in the environment—often it's too hot and dry for good germination and wildlife will eat many of them before they can germinate next fall or spring.

Sow your seeds evenly across your prepared area and gently rake, use a roller or plywood, or walk over the soil to firmly press the seeds into the soil. You want the seeds to have contact with the soil, but not be buried more than 1/8 inch.

Plants from pots are a little more flexible for planting time—while fall is usually best, they can be planted any time of year as long as they get regular (2-3 times per week) water from the sky or your hose, for the first year. Water plants immediately after planting. You can put some mulch (such as wood chips, straw, or leaves) around the plants to reduce weeds.

Creating a pollinator habitat

Step 3: maintaining your wildflowers

Maintaining pollinator habitat: Your habitat site will provide a good open place for your plants to grow and thrive. Be sure to control weeds so they don't take over the habitat. You can replant with natives in following years if you need to fill in gaps or replace plants in pots that are at the end of their life cycle. Think of pollinator garden maintenance like brushing your teeth; consistent care is key to keeping your habitat free of weeds and buzzing with pollinators.

- ✓ Short-term (1-3 year) and long-term (> 4 year) maintenance are crucial for successful pollinator gardens.
- ✓ If areas are well prepared, then less maintenance will be required.
- ✓ Keep an eye on your garden to see if weeds need to be pulled or water added.
- ✓ Water is needed for the first year for native plants planted from pots and needed for seeded areas if not sown in the fall (before the wet season).
- ✓ Remember, native plants are meant to thrive in your region, and if seeds are sown when they would naturally fall from plants or plants are timed to be planted before the wet season, they will need little supplemental water from you.
- ✓ Once native plants are established (one year after planting from pots, two years after sowing seeds), they should not need any additional water. That's right—you don't need to water your pollinator habitat after it is established! (But remember, the exception is plants in pots—they will need to be watered throughout the dry season as the plant roots can't expand beyond the pot, and the soil will dry out).

- ✓ Another consideration is the changing climate. If you have unusual drought for an extended amount of time, help your plants out with some watering. But don't overdo it—remember, these plants are adapted to the typical rain patterns in your region.
- ✓ You can enjoy your garden and watch it change throughout the seasons and years.
- ✓ Pull weeds when you see them and pick some flowers for indoor bouquets.



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- ✓ Divide and transplant some of the long-lived perennials to make room for annuals and expand your habitat.
- ✓ Harvest some seeds and spread them around your garden.
- ✓ Share extra plants with your family, friends, and neighbors.
- ✓ Leave the leaves and seed heads through the winter and prune as needed.
- ✓ Make your own mulch from garden trimmings.
- ✓ Take notes and photographs to track your garden through time, as well as the new visitors it attracts!
- ✓ Most of all, enjoy your pollinator habitat and all the wonderful life it brings to your yard. Thank you for helping pollinators and the planet!



Share extra plants with your family, friends, and neighbors.





What to expect

Habitat created from potted plants will look great right away and will continue to look better each year, with the proper care, as the plants grow and fill the area. Habitat created from seeds requires a bit longer to establish and thrive. Annual plants will flower in the first year after seeding your area. Your annuals can self-sow each year if you help maintain patches of bare soil. Most of the perennials will grow root systems during year one, expand leaves and flowers during year two, and reach mature sizes during year three. Your perennials will regrow from their roots each year.



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About Pollinator Partnership

Pollinator Partnership is the largest nonprofit in the world dedicated exclusively to the protection and promotion of pollinators and their ecosystems. Their mission is to promote the health of pollinators, critical to food and ecosystems, through conservation, education, and research. Please visit the [Pollinator Partnership website](#) to find out more and support their work. Thanks to Pollinator Partnership for their expertise in producing the AXA XL Backyard Biodiversity resources.

Here's what else you can discover in the AXA XL Backyard Biodiversity toolkit:



Learn about pollinators and the threats they face by visiting [Meet the pollinators](#).



Discover how to create a buzz where you live by visiting the [Guide to bee hotels](#).



Get to know the most common pollinators and native pollinator plants in your local area through the [Identifying pollinators guide](#).

