

2021 Pollinator-Friendly Planting Guide



Grow with us!

Minnesota pollinators need our help. That's why the Environmental Quality Board's Interagency Pollinator Protection Team (IPPT) is distributing over 50,000 packets for Minnesotans to grow pollinator-friendly gardens. The seed packets contain a mix of forbs and grasses developed by the IPPT in collaboration with Minnesota Native Landscapes (Table 1).

Do your part for pollinators by planting a diverse mix of flowers (forbs) and grasses!

Table 1. Seed mix composition

Type	Scientific Name	Common Name	%	Bloom Time	Pollinator Notes
Forbs	<i>Asclepias incarnata</i>	Swamp milkweed	10	Summer	Host plant of monarch caterpillars.
	<i>Liatris ligulistylis</i>	Meadow blazing star	5	Summer	One of the monarch's favorite nectar plant.
	<i>Verbena stricta</i>	Hoary vervain	10	Summer	Attractive to native bees and butterflies. Hosts at least one specialist bee.
	<i>Heliopsis helianthoides</i>	Common ox-eye	10	Summer	Watch pollinators walk around the flower sipping nectar with their proboscises (mouths).
	<i>Monarda fistulosa</i>	Wild bergamot	5	Summer	Provides a lot of nectar. Great for observing and photographing bumble bees!
	<i>Agastache foeniculum</i>	Fragrant giant hyssop	5	Summer	A native mint attractive to bees, hummingbirds, butterflies, and moths.
	<i>Zizia aurea</i>	Golden Alexanders	5	Spring	A pollen and nectar source for early emerging bees during spring.
	<i>Rudbeckia hirta</i>	Black-eyed Susan	10	Summer	A long flowering nectar source. Some birds like to eat their seeds.
	<i>Dalea purpurea</i>	Purple prairie clover	10	Summer	Great for observing native bees collect pollen. Look for vibrant orange pollen on bees' legs and underside!
	<i>Symphyotrichum laeve</i>	Smooth blue aster	5	Fall	Provides food for bees and butterflies during late fall.
Grasses	<i>Schizachyrium scoparium</i>	Little bluestem	25	Summer	Host plant of grass skipper caterpillars. Provides pollinator nesting habitat.

Where to start?

It can be intimidating to start a pollinator-friendly habitat project. The native seed packet you received contains a great mix of forbs (flowering plants) and grasses that will help you kick-start your own project.

Here are some quick tips to help you get started:

- **Plant your seeds during late fall, spring, or early summer.** Many native seeds need winter conditions to break their dormancy.
- **Select a site.** Plant in a small area or in containers in an area that receives 6 to 8 hours of sun per day. This seed packet contains enough seeds to plant 10 sq. ft.
- **Prepare your soil.** You need to remove existing vegetation, because new seedlings can't compete with larger plants or turf. There is no need to add fertilizers, as native plants are adapted to poor soils.
- **Provide seed-to-soil contact.** To achieve good seed-to-soil contact, spread seeds on soil surface and lightly rake them into soil. Be careful not to plant the seeds too deep. Then, lightly pack the soil surface.
- **Water.** You don't need to water the seeds as long as they receive about one inch of rainfall a week. Plan accordingly.
- **Be patient.** It can take longer for native plants to get established from seeds.

Go the extra mile!

Provide flowers all season long

Pollinators need food throughout the growing season, so provide pollen and nectar all season long! Early spring flowers, like golden alexanders and large beardtongue, or shrubs like wild plum and willows, are critical food sources for our earliest emerging pollinators. Late-flowering species like the asters and goldenrods, are critical nectar sources for pollinators that overwinter, like managed honey bees and young bumble bee queens.

Offer nesting habitat

In addition to nectar and pollen, optimal pollinator habitat includes areas for overwintering and nesting. Leaving some undisturbed areas near or in your pollinator garden is ideal for pollinator nesting. Leave downed logs, clumps of grasses, leaf litter, flower stems, and bare spots to provide nesting and overwintering habitat. While native grasses—such as the little bluestem in this mix—don't provide nectar for pollinators, they serve as nesting habitat for several pollinator species!

Minimize pesticide use for pollinator health

- Identify and understand pests and beneficial insects.
- Accept some insect damage on plants. It may be evidence that your garden is providing habitat for pollinators!

- Use pesticides only when necessary. If you need to apply pesticides:
 - Look for the pollinator protection box on insecticide labels and follow the label exactly. The label is the law.
 - Apply when bees are not foraging (early morning or evening, or when air temperatures are below 55°F).
 - Prevent drift when applying pesticides. Avoid applying pesticides when it is windy.

Additional resources

- If you need more details and resources to install your project, the Minnesota Board of Water and Soil Resources has created a [Residential Pollinator Habitat webpage](#) with information on what type of residential pollinator habitat works best for you and how to start it.
- For more pollinator-supporting plant suggestions:
 - The Xerces Society regional [Pollinator-Friendly Native Plant Lists](#)
 - The [Great Lakes Region](#) and the [Northern Plains Region](#) provide specific suggestions appropriate for Minnesota.
 - Minnesota DNR's draft [Pollinator Resource Values for Upland & Wetland Prairies \(printable booklet version\)](#) has additional suggestions for open, full-sun gardens and recreating diverse prairie.
 - BWSR's [Pollinator Toolbox- Plants and Seed Mixes page](#) includes tree and shrub suggestions!
- To learn more about pest control and integrated pest management at your home, the Minnesota Department of Agriculture has developed [best management practices](#) with a focus on pollinator protection.
- To read the annual Minnesota State Agency Pollinator Report, visit the [EQB's Pollinators page](#).
- Map your self-installed pollinator project on [Blue Thumb website](#).