



# How You Can Help Pollinators

## Guidance for using pollinator seed in Minnesota home landscapes

Each year, wild and domesticated bees pollinate around 30 percent of crops in the United States. These pollination services are worth approximately \$23 billion. Bees also pollinate around 70 to 80 percent of native flowering plants in the Midwest, allowing the plants to produce seed and survive. More than 4,000 native bee species call North America home, but many of their numbers are declining, along with many types of butterflies and other insects. At the same time, colonies of European honey bees have also suffered significant annual losses. Habitat loss, pesticide use, and a variety of other factors contribute to the declines of these insects.



Monarch butterfly on native meadow blazing star (*Liatris ligulistylis*)

You can establish plants for pollinators from seed or by planting bare-root or container-grown plants. Using seed mixes can be an economical and effective choice, but it is important to select species that will support native pollinator species and protect native plant communities. Only plant the contents of seed packets **in home gardens and not in public natural areas**. Here are some tips to help you choose a seed mix and plant your project successfully.

### What should be in pollinator seed mixes?

- 40 to 60 percent wildflowers (by seed count) is recommended.
- Although native grasses are not a source of nectar, they provide pollinators with shelter and nesting habitat, serve as a food source for some butterfly larvae, and play an important role in supporting flowers and reducing weed competition.
- A mix of species that flower at different times in spring, summer, and fall provides pollinators with a continuous food source throughout the seasons.
- A wide range of bloom times and flower colors and shapes ensures that your garden benefits a variety of pollinator species.
- Finally, choose species native to the region where they will be planted and do not include invasive or noxious species

Native seed mixes play an important role in providing pollinator habitat in home landscapes



Native sneezeweed (*Helenium autumnale*) may have an unattractive name, but bumble bees love it!

### Key pollinator plant species

You can select plant species to support specific insects. For example, if you want to help monarch butterflies, you will need to include milkweeds and high quality nectar plants like blazing stars. To support bumble bees, include plants like wild bergamot, blue giant hyssop, and goldenrods.

Pollinator Plant Resources: [Great Lakes Plants for Native Bees](#), [Protecting Bees from Neonicotinoids in Your Garden](#), [Great Lakes Monarch Nectar Plants](#), [Conserving Bumblebees](#); [BWSR Featured Plants](#), [Attracting Native Pollinators: Protecting North America's Bees and Butterflies](#), [Pollinator Friendly Gardening: Gardening for Bees, Butterflies, and Other Pollinators](#); [Pollinators of Native Plants](#); [Bees: An Identification and Native Plant Forage Guide](#); [Garden Plants for Honey Bees](#); [Gardening for Butterflies](#); [100 Plants to Feed the Bees: Provide a Healthy Habitat to Help Pollinators Thrive](#)

Some widely-distributed native herbaceous species for establishment in home gardens	
<b>Spring Blooming</b>	Downy yellow violet, golden Alexanders, long-bracted spiderwort, red columbine, Virginia waterleaf, wild geranium, large beardtongue, slender beardtongue, wild lupine*, Jacobs ladder*
<b>Summer Blooming</b>	Black-eyed Susan, blue giant hyssop*, blue lobelia, butterfly milkweed, Canada milkvetch, common milkweed, common yarrow, Culver's root, cup plant, hoary vervain, Joe-Pye weed, meadow blazing star, mountain mint, prairie coreopsis, purple prairie clover, rough blazing star, spotted Joe-Pye weed, stiff sunflower, swamp milkweed, wild bergamot
<b>Fall Blooming</b>	Bottle gentian, common boneset, common sunflower, heath aster, New England aster, panicked aster, showy goldenrod, silky aster, smooth aster, sneezeweed, stiff goldenrod
<b>Grasses</b>	Canada wild rye, Junegrass, little bluestem, plains oval sedge*, prairie dropseed*, side-oats grama
Some non-native annual species that are not invasive and are attractive to pollinators:	
basil, borage, coleus, crocus, daffodil, dahlia, dill, fuchsia, garden pansy, hyacinth, lavender, nasturtium, phacelia, pot marigold, salvia, sunflower, sweet pea, wild pansy, zinnia	

Note: Go to the [Minnesota Wildflowers](https://www.minnesotawildflowers.info/) website: <https://www.minnesotawildflowers.info/> to find scientific names of native species in this table. Some species have links in this document. Species with a \* have a limited range in Minnesota.

### Should I buy local seeds and plants?

We recommend locally produced [native](#) seeds and plants for pollinator habitat projects. Buying local helps protect nearby native plant communities and provides plant species that are sure to be compatible with local insect populations. The Xerces Society has resources, including [Pollinator Friendly Plant lists](#) for the Great Lakes Region, to guide your species selection. Another important consideration is finding a local [native seed supplier](#) whose production process avoids the use of pollinator-toxic pesticides.

### What should be on a seed tag?

A complete [seed tag](#) should include the species in the seed mix (including scientific name), seed origin, species percentages by seed count, lot number, pack date, net weight, and the address of the company supplying the seed. Other useful information includes area of coverage and planting directions.

### Seed establishment

Pollinator habitat can be planted in unused portions of yards, traditional perennial or annual beds, and even planters. Avoid pesticide use in areas where pollinator seeds are planted. Here are some keys to successful native plant establishment: For more details, see Xerces' Upper Midwest Pollinator Habitat Installation Guidelines:

- Control weeds before establishing pollinator habitat; this is especially important for perennial weeds.
- Pollinator seed mixes are often planted in **late fall** as many wildflower seeds benefit from exposure to winter conditions to help break seed dormancy. You can also plant seeds in April through June.
- Spread seeds on top of the soil surface and lightly rake them into the soil to achieve good soil contact. Be careful not to bury the tiny seeds very deep.
- Lightly pack the soil surface after you have spread the seed.
- Generally, you do not need to provide native plant seedlings with supplemental watering as long as they receive about one inch of rainfall a week. Do not fertilize, as these plants are well-adapted to poor soils.

#### Seed Tag Example:

Planting instructions: Plant in spring or fall. Choose a sunny spot, remove existing growth, prepare a good seedbed, and scatter the seed evenly. Then compress the seed lightly into the soil, but do not cover. Water as needed throughout the first growing season. Covers 5 square feet.

This Pollinator Mix includes the following species:

Name	Source
10% Silky Aster ( <i>Symphyotrichum sericeum</i> )	Martin Co. MN
15% Swamp Milkweed ( <i>Asclepias incarnata</i> )	Chisago Co. MN
5% Black-Eyed Susan ( <i>Rudbeckia hirta</i> )	Anoka Co. MN
15% Wild Bergamot ( <i>Monarda fistulosa</i> )	Winona Co. MN
15% Golden Alexanders ( <i>Zizia aurea</i> )	Winona Co. MN
20% Sideoats Grama ( <i>Bouteloua curtipendula</i> )	Anoka Co. MN
20% Little Bluestem ( <i>Schizachyrium scoparium</i> )	Stearns Co. MN

Lot No: MNLMDA1601

Packed for 2016, Net Wt. 400mg

Packet creation and seed provided by MN Wildflowers, Inc., 119 Loon Lake, MN 55155. Minnesota native plant species.