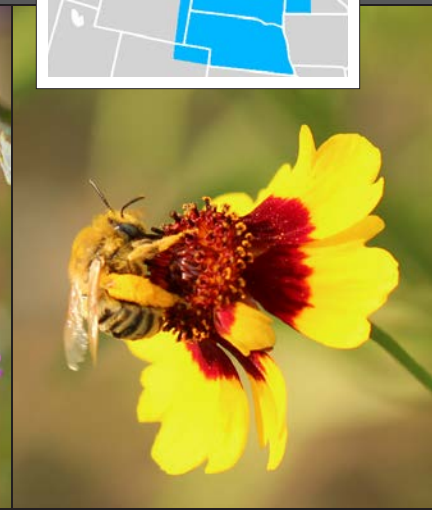


Northern Plains Region



Leadplant (foreground) and other native prairie wildflowers in bloom, blue giant hyssop, and golden tickseed

The Northern Plains, which includes Canada’s prairie provinces, the Dakotas, eastern Montana, Wyoming, Nebraska, and western Minnesota, are characterized by mild to hot summers and frigid winters. Cold and dry, this region supports tallgrass prairie in the east, blending into mixed and shortgrass prairies moving westward.

Across this region is a unique community of prairie pollinators, from the sunflower leafcutter bee (*Megachile pugnata*), one of the largest leafcutter bees found in North America, to the Poweshiek skipperling (*Oarisma poweshiek*; federally endangered), Dakota skipper (*Hesperia dacotae*; federally threatened), and Ottoe skipper (*H. ottoe*) butterflies that feed on native prairie grasses as caterpillars, and the regal fritillary butterfly (*Speyeria idalia*), an iconic prairie butterfly. As a group, these and other pollinators maintain healthy, productive plant communities, provide food that sustains wildlife, and play an essential role in crop production.

Providing flower-rich habitat is the most significant action you can take to support pollinators. Adult bees, butterflies, and flower-visiting beetles, flies, wasps, and moths require nectar and/ or pollen as their primary food source. Female bees also collect pollen and nectar as food for their offspring. Native plants, which are adapted to local soils and climates, are usually the best sources of nectar and pollen for native pollinators. Incorporating native wildflowers, shrubs, and trees into any landscape promotes local biological diversity by providing shelter and food for wildlife.

Native plants are better adapted to regional climate cycles, do not need fertilizers, and are less likely to become weedy.

This guide features native plants that are highly attractive to pollinators and are well suited for small-scale plantings in gardens, on business and school campuses, in urban greenspaces, and in farm field borders. In addition to supporting native bees and honey bees, many of these plants attract nectar-seeking butterflies, moths, and hummingbirds, and some are host plants for butterfly and moth caterpillars. With few exceptions, these species occur broadly across the region and can be purchased as seed or transplants. Please consult regional Floras, the Biota of North America’s North American Plant Atlas (<http://bonap.net/napa>), or the USDA’s PLANTS database (<http://plants.usda.gov>) for details on the distributions of plant species in your area.

Our **Bring Back the Pollinators** campaign is based on four principles:

1. **Grow** a variety of pollinator-friendly flowers;
2. **Protect and provide** bee nest sites and caterpillar host plants;
3. **Avoid** using pesticides, especially insecticides; and
4. **Spread** the word!

You can participate by taking the **Pollinator Protection Pledge** and registering your habitat on our nationwide map at:

www.bringbackthepollinators.org.

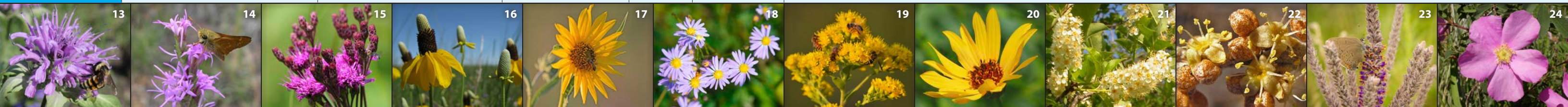




This list of pollinator plants for the Northern Plains Region was produced by the Xerces® Society. For more information about pollinator conservation, please visit www.xerces.org.



Bloom Period	Common Name	Scientific Name	Flower Color	Max. Height*	Water Needs	Notes
	Forbs			(Feet)	L: low; M: medium; H: high	All species are perennials, unless otherwise noted. *Max. Height is an average, individual plants may vary. HP = host plant (caterpillar)
Early	1 American vetch	<i>Vicia americana</i>	purple	1	L	Vining legume; visited by bumble bees, honey bees, and sweat bees; attractive to birds and other wildlife; HP : numerous butterflies
	2 Eastern pasqueflower	<i>Pulsatilla patens</i>	white/ blue/ purple	1.5	L	One of the first wildflowers to bloom; attractive, silky-soft stems and foliage; visited by a variety of early flying bees and beneficial flies
	3 Large beardtongue	<i>Penstemon grandiflorus</i>	purple	3.5	L	Drought tolerant; grows well in well-drained poor, gravelly, or sandy soils; visited by a variety of bees, beneficial wasps, and flies
	4 Prairie spiderwort	<i>Tradescantia occidentalis</i>	purple	1.5	L	Tolerates partial shade and drought; deer-resistant; attracts bumble bees, honey bees, and beneficial flies
Early-Mid	5 Purple prairie clover	<i>Dalea purpurea</i>	purple	3	M	Legume; very attractive to many bees, butterflies, beneficial wasps, flies, and beetles; HP : numerous butterflies
	6 Scarlet globemallow	<i>Sphaeralcea coccinea</i>	red/ orange	1	L	<i>Sphaeralcea</i> spp. are drought tolerant; visited by bees and butterflies; HP : small and common checkered-skipper butterflies
Mid	7 Blue giant hyssop	<i>Agastache foeniculum</i>	purple	2	L	Fragrant foliage; reseeds and colonizes readily; very attractive to bees (including honey bees), butterflies, moths and beneficial flies
	8 Golden tickseed	<i>Coreopsis tinctoria</i>	yellow	3	M	Annual; tolerates a wide range of soils and reseeds easily; attracts bees, butterflies, and many other beneficial insects
	9 Narrowleaf coneflower	<i>Echinacea angustifolia</i>	pink	2	M	<i>Echinacea</i> spp. are attractive to a wide range of pollinators and a key nectar source for skipper butterflies (shown: Dakota skipper)
	10 Rocky Mountain beeplant	<i>Cleome serrulata</i>	white/ pink/ purple	4	M	Annual; drought tolerant and reseeds readily; attracts bees and butterflies; HP : checkered white butterfly
	11 Showy milkweed	<i>Asclepias speciosa</i>	pink	3	M	Milkweeds (<i>Asclepias</i> spp.) are HP for the monarch butterfly; great nectar source for bees and beneficial insects; can spread in gardens
	12 Showy ticktrefoil	<i>Desmodium canadense</i>	pink	6	L	Legume; grows well in moist sandy or rocky soils; highly attractive to bees and beneficial flies; HP : multiple butterflies
	13 Wild bergamot	<i>Monarda fistulosa</i>	pink	4.5	M	Establishes easily from seed; supports a wide range of pollinators and other beneficial insects; HP : hermit sphinx moth
Mid-Late	14 Dotted blazing star	<i>Liatris punctata</i>	purple	2	L	Blazing stars (<i>Liatris</i> spp.) support bees as well as many butterflies including monarchs, swallowtails, skippers, and sulfurs
	15 Prairie ironweed	<i>Vernonia fasciculata</i>	purple	6	M	Grows under a variety of conditions; <i>Vernonia</i> spp. attract late summer butterflies and bees; HP : yellow-spotted tiger moth
	16 Upright prairie coneflower	<i>Ratibida columnifera</i>	yellow	3.5	L	Deer-repellent foliage; attracts diverse bee species as well as beneficial flies, beetles, and wasps during its long bloom period
Late	17 Maximilian sunflower	<i>Helianthus maximiliani</i>	yellow	8	L	Vigorous and may spread; attracts a diversity of bees and other pollinators; HP : gorgone checkerspot and bordered patch butterflies
	18 Smooth blue aster	<i>Symphotrichum laeve</i>	purple	3	M	Grows in many soils; asters (<i>Symphotrichum</i> spp.) are visited by butterflies, bees, and other beneficial insects
	19 Stiff goldenrod	<i>Oligoneuron rigidum</i>	yellow	3	M	Establishes easily from seed; drought tolerant; attracts butterflies, honey bees, beneficial wasps and beetles
	20 Stiff sunflower	<i>Helianthus pauciflorus</i>	yellow	5	L	Easy to grow, but can spread; draws in many pollinators; HP : gorgone checkerspot and several moths
	Shrubs and Trees					
Early-Mid	21 Chokecherry	<i>Prunus virginiana</i>	white	20	M	Adapts to many conditions; supports a diversity of beneficial insects; fruits important for birds; HP : a large number of lepidopteran spp.
	22 Silver buffaloberry	<i>Shepherdia argentea</i>	white	16	M	Low maintenance, and tolerates poor soil and drought; inconspicuous flowers attract bees and flies; berries eaten by birds
Mid	23 Leadplant	<i>Amorpha canescens</i>	purple	3	L	Legume; grows well in open areas and dry prairies (<i>A. fruticosa</i> is good for wetter sites); HP : leadplant flower moth (in decline)
	24 Woods' rose	<i>Rosa woodsii</i>	pink	6	L	Tolerates some shade, various soils; attracts bees, butterflies, wasps and flies; <i>R. arkansana</i> also attractive; HP : white-lined sphinx moth



Planting for Success

Sun Exposure

Most pollinator-friendly plants prefer sites that receive full sun throughout most of the day and are mostly open, with few large trees. A southern exposure can provide the warmest habitat, but is not required.

Plant Diversity

Choosing a variety of plants with overlapping and sequential bloom periods will provide food for pollinators throughout the seasons.

Habitat Size and Shape

Habitat patches that are bigger and closer to other patches are generally better than those that are smaller and more isolated from one another. However, even a small container garden can attract and support pollinators!

Planting Layout

Flowers clustered into clumps of one species will attract more pollinators than individual plants scattered through a habitat patch. Where space allows, plant clumps of the same species within a few feet of one another.

Seeds or Transplants

It is usually cheaper to establish large habitat areas from seed; however, seeding native wildflowers on a large-scale is an art unto itself. For step-by-step instructions, see *Establishing Pollinator Meadows from Seed* and the Pollinator Habitat Installation Guides listed in the Additional Resources section. For smaller areas like gardens, transplants are usually easier to use and will bloom faster than plants started from seed.

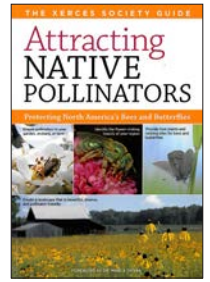
Protect Pollinators from Insecticides

Although dependent on timing, rate, and method of application, all insecticides have the potential to poison or kill pollinators. Systemic insecticides in particular have received significant attention for their potential role in pollinator declines (imidacloprid, dinotefuran, clothianidin, and thiamethoxam are examples of systemic insecticides now found in various farm and garden products). Because plants absorb systemic insecticides as they grow, the chemicals become distributed throughout plant tissues and are sometimes present in pollen and nectar. You can help protect pollinators by avoiding the use of these and other insecticides. Before purchasing plants from nurseries and garden centers, be sure to ask whether they have been treated with insecticides. To read more about threats to pollinators from pesticides, please visit: www.xerces.org/pesticides.

Additional Resources

Attracting Native Pollinators

Our best-selling book highlights the role of native pollinators in natural ecosystems, gardens, and farms. This comprehensive guide includes information about pollinator ecology, detailed profiles of over 30 common bee genera, and habitat designs for multiple landscapes with over 50 pages of fully illustrated regional plant lists. Available in bookstores everywhere, and through www.xerces.org/books.



The Xerces Pollinator Conservation Resource Center

Our Pollinator Conservation Resource Center includes regional information on pollinator plants, habitat conservation guides, nest management instructions, bee identification and monitoring resources, and directories of native pollinator plant nurseries. www.xerces.org/pollinator-resource-center

Lady Bird Johnson Wildflower Center

The Xerces Society has collaborated with the Lady Bird Johnson Wildflower Center to create lists of plants that are attractive to native bees, bumble bees, honey bees, and other beneficial insects, as well as plant lists with value as nesting materials for native bees. These lists can be narrowed down with additional criteria such as state, soil moisture, bloom time, and sunlight requirements. The Center's website also features image galleries, how-to articles on native plant gardening, and more. www.wildflower.org/conservation_pollinators

Establishing Pollinator Meadows from Seed

These guidelines provide step-by-step instructions for establishing pollinator meadows from seed in areas that range in size from a small backyard garden up to an acre. Topics include: site selection, site preparation, plant selection, planting techniques, and ongoing management. www.xerces.org/establishing-pollinator-meadows-from-seed

Pollinator Habitat Installation Guides

These regional guidelines, developed in collaboration with the USDA's Natural Resources Conservation Service, provide in-depth practical guidance on how to install nectar and pollen habitat for bees in the form of wildflower meadow plantings or linear rows of native flowering shrubs. Region-specific seed mixes and plant recommendations are included in the appendices of each guide. www.xerces.org/pollinator-habitat-installation-guides

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