

MONARCH NECTAR PLANTS

Midwest



Left to right: Monarch on butterfly milkweed, sawtooth sunflower, and a monarch on prairie blazing star.

Beyond the agricultural patchwork of the Midwest states of Iowa, Missouri, Illinois, and Indiana lies vast tallgrass prairies, oak savannas, deciduous forests, and sprawling wetlands. These habitats are home to thousands of pollinating insects and other wildlife, including several imperiled species of bumble bees and butterflies. The Midwest is also a critically important breeding area for the monarch butterfly, which can be found in large numbers throughout the summer.

Each spring, monarchs leave overwintering sites in coastal California and the mountains of central Mexico and fan out across North America to breed and lay eggs on milkweed, the monarch's host plant. Several generations are produced over the course of the spring and summer, and by May monarchs begin arriving in the Midwest. In late summer and early fall, adults migrate back to the overwintering sites, where they generally remain in reproductive diapause until the spring, when the cycle begins again.

Monarchs at overwintering sites in Mexico and California have declined dramatically since monitoring began in the late 1990s. Across their range in North America, monarchs are threatened by a variety of factors. Loss of milkweed from extensive herbicide use has been a major contributing factor, and habitat loss and degradation from other causes, natural disease and predation, climate change, and widespread insecticide use are probably also contributing to monarch declines. Because of the monarch's migratory life cycle, it is important to protect and restore habitat across their entire

range. Adult monarchs depend on diverse nectar sources for food during all stages of the year, from spring and summer breeding to fall migration and overwintering. Caterpillars, on the other hand, are completely dependent on their milkweed host plants. Inadequate milkweed or nectar plant food sources at any point may impact the number of monarchs that successfully arrive at overwintering sites in the fall.

Providing milkweeds and other nectar-rich flowers that bloom where and when monarchs need them is one of the most significant actions you can take to support monarch butterfly populations in the Midwest. This guide features Midwest native plants that have documented monarch visitation, bloom during the times of year when monarchs are present, are commercially available, and are known to be hardy. These species are well-suited for wildflower gardens, urban greenspaces, and farm field borders. Beyond supporting monarchs, many of these plants attract other nectar- and/or pollen-seeking butterflies, bees, moths, and hummingbirds, and some are host plants for other butterfly and moth caterpillars. For a list of native plants that host butterflies and moths specific to your zip code see www.nwf.org/nativeplantfinder.

The species in this guide are adaptable to growing conditions found across the Midwest. 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 species' distributions in your area.



Bloom	Common Name	Scientific Name	Flower Color	Max. Height	Water Needs
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	Forbs			(Feet)	Low, Medium or High
Spring to Summer	1 Culver's root	<i>Veronicastrum virginicum</i>	White/pink/blue	7	M/H
	2 Stiff tickseed	<i>Coreopsis palmata</i>	Yellow	3	L/M
Spring to Fall	3 Hoary verbena	<i>Verbena stricta</i>	Purple	4	L/M
Summer	4 Bearded beggarticks	<i>Bidens aristosa</i>	Yellow	4	H
	5 Butterfly milkweed	<i>Asclepias tuberosa</i>	Orange/yellow	2	L
	6 Common milkweed	<i>Asclepias syriaca</i>	White/purple	3	L/M
	7 Eastern purple coneflower	<i>Echinacea purpea</i>	Pink/purple	5	M
	8 Pale purple coneflower	<i>Echinacea pallida</i>	Pink/purple	3	L
	9 Prairie blazing star	<i>Liatris pycnostachya</i>	Purple	5	M
	10 Swamp milkweed	<i>Asclepias incarnata</i>	Pink	4	M
	11 Black-eyed Susan	<i>Rudbeckia hirta</i>	Yellow	2	M
	12 False boneset	<i>Brickellia eupatorioides</i>	White	4	L
	13 Field thistle	<i>Cirsium discolor</i>	Pink/purple	7	L
Summer to Fall	14 Maximilian sunflower	<i>Helianthus maximiliani</i>	Yellow/brown	10	L
	15 New England aster	<i>Symphotrichum novae-angliae</i>	Pink/purple	6	M
	16 Ontario blazing star	<i>Liatris cylindracea</i>	Purple	2	L/M
	17 Sawtooth sunflower	<i>Helianthus grosseserratus</i>	Yellow	10	M
	18 Stiff goldenrod	<i>Oligoneuron rigidum var. rigidum</i>	Yellow	5	M
	19 Tall blazing star	<i>Liatris aspera</i>	Pink/purple	3	L
	20 Tall thoroughwort	<i>Eupatorium altissimum</i>	White	6	L/M
	21 Whorled milkweed	<i>Asclepias verticillata</i>	White	3	L
	22 Wild bergamot	<i>Monarda fistulosa</i>	Pink/purple	5	L/M

Shrubs

Summer	23 Common buttonbush	<i>Cephalanthus occidentalis</i>	White	12	H
Summer to Fall	24 Leadplant	<i>Amorpha canescens</i>	Blue/purple	3	L/M





Notes

All species perennials, unless otherwise noted. Monarchs are present May through September in the Midwest.

Adaptable plant in the garden. Attracts butterflies and bees.

Drought tolerant. Good for areas with poor, dry soils.

Important nectar source for butterflies. Host plant for common buckeye.

Annual plant. Prefers wet soils.

Monarch caterpillar host plant. Drought tolerant. Easily grown from seed.

Monarch caterpillar host plant.

Can become aggressive. Attracts a number of butterflies, native bees, and hummingbirds.

Adaptable and tolerant to drought and poor soils.

Dense flower spikes attract numerous bees, butterflies, and moths, including the pink bleeding flower moth (*Schinia sanguinea*).

Monarch caterpillar host plant.

Can be biennial or annual. Butterfly attractant. Drought tolerant.

Tolerates poor soils.

Not to be confused with non-native thistles; a now uncommon but important plant for butterflies and bumble bees. Biennial.

Very showy plant. Can be aggressive in the garden if not controlled.

Tolerates clay soils.

Shorter than other *Liatris* species and tends to bloom later in the year.

Tolerates many soil types. Can be quite large in the garden.

May be too aggressive for small areas.

Drought tolerant. An incredible monarch attractant.

Drought tolerant.

Monarch caterpillar host plant.

Aromatic foliage. Flowers attract butterflies, bees, and hummingbirds.

Fragrant, showy flowers that attract butterflies.

Drought tolerant.



Planting for Success

Monarch nectar plants often do best in open, sunny sites. You can attract more monarchs to your area by planting flowers in single species clumps and choosing a variety of plants that have overlapping and sequential bloom periods. Monarchs are present from May through September in the Midwest. Providing nectar plants that bloom from spring through late fall will be important for breeding and migrating monarchs in the region.

Why Plant Native?

Although monarchs use a variety of nectar plant species, including exotic invasives such as butterfly bush and English ivy, we recommend planting native species. Native plants are often more beneficial to ecosystems, are adapted to local soils and climates, and help promote biological diversity. They can also be easier to maintain in the landscape, once established.

Tropical milkweed is a non-native plant that is widely available in nurseries. This milkweed can persist year-round in mild climates, allowing monarchs to breed throughout the winter rather than going into diapause. Tropical milkweed may foster higher loads of a monarch parasite called *Oe* (*Ophryocystis elektroscirrha*), which negatively impacts monarch health. Because of these implications, we recommend planting native species of milkweeds in areas where they historically occurred. You can read more about *Oe* in a fact sheet by the Monarch Joint Venture: http://monarchjointventure.org/images/uploads/documents/Oe_fact_sheet.pdf.

Protect Monarchs from Pesticides

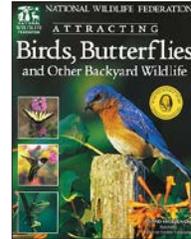
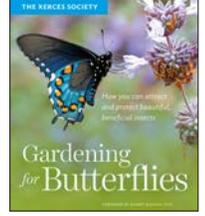
Both insecticides and herbicides can be harmful to monarchs. Herbicides can reduce floral resources and host plants. Although dependent on timing, rate, and method of application, most insecticides have the potential to poison or kill monarchs and other pollinators. Systemic insecticides, including neonicotinoids, 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 all plant tissues, including the leaves and nectar. New research has demonstrated that some neonicotinoids are toxic to monarch caterpillars that are poisoned as they feed on leaf tissue of treated plants. You can help protect monarchs 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 systemic insecticides. To read more about threats to pollinators from pesticides, please visit: www.xerces.org/pesticides.

Additional Resources

Publications & Resources

Gardening for Butterflies

The Xerces Society's newest book introduces you to a variety of butterflies who need our help, and provides suggestions for native plants to attract them, habitat designs to help them thrive, and garden practices to accommodate all stages of their life. Available through www.xerces.org/books.



Attracting Birds, Butterflies, and Other Backyard Wildlife

This award-winning book by the National Wildlife Federation's naturalist David Mizejewski is full of information on gardening for birds, pollinators and other wildlife, including illustrated how-to projects, recommended plant lists, and gorgeous color photos. You'll learn everything you need to know to create a Certified Wildlife Habitat. Available through <http://bit.ly/1Xhxfgu>.

Conservation Status and Ecology of the Monarch Butterfly in the U.S. Report

www.xerces.org/us-monarch-consv-report

Pollinator Plants of the central U.S.: Native Milkweeds

<http://bit.ly/1z7CX4U>

Milkweed Seed Finder www.xerces.org/milkweed-seed-finder

Websites

The Xerces Society www.xerces.org/monarchs

Monarch Joint Venture www.monarchjointventure.org/resources

Natural Resources Conservation Service

www.nrcs.usda.gov/monarchs

National Wildlife Federation www.nwf.org/butterflies

Citizen Science Efforts in the Midwest

Journey North www.learner.org/jnorth/monarch

Monarch Larva Monitoring Project www.mlmp.org

Project Monarch Health www.monarchparasites.org

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