# 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 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 be 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 <a href="mailto:nwf.org/nativeplantfinder">nwf.org/nativeplantfinder</a>. 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 (<a href="mailto:bonap.net/napa">bonap.net/napa</a>), or the USDA's PLANTS database (<a href="plants.usda.gov">plants.usda.gov</a>) for details on species' distributions in your area.







|                                                    |                        |                                  |                 |                | 9                     |
|----------------------------------------------------|------------------------|----------------------------------|-----------------|----------------|-----------------------|
| Bloom                                              | Common Name            | Scientific Name                  | Flower Color    | Max.<br>Height | Water<br>Needs        |
|                                                    | Forbs                  |                                  |                 | (Feet)         | Low, Med.,<br>or High |
| Spring to Fall 1                                   | Hoary verbena          | Verbena stricta                  | Purple          | 4              | L/M                   |
| 2<br>3<br>4<br>5<br>6<br>Summer<br>7<br>8<br>9     | Bearded beggarticks    | Bidens aristosa                  | Yellow          | 4              | Н                     |
|                                                    | Butterfly milkweed     | Asclepias tuberosa               | Orange / yellow | 2              | L                     |
|                                                    | Common milkweed        | Asclepias syriaca                | White / purple  | 3              | L/M                   |
|                                                    | Compass plant          | Silphium laciniatum              | Yellow          | 8              | L                     |
|                                                    | Joe Pye weed           | Eutrochium purpureum             | Purple / pink   | 6              | M/H                   |
|                                                    | Pale purple coneflower | Echinacea pallida                | Pink / purple   | 3              | L                     |
|                                                    | Prairie blazing star   | Liatris pycnostachya             | Purple          | 5              | М                     |
|                                                    | Purple coneflower      | Echinacea purpurea               | Purple / pink   | 3              | М                     |
|                                                    | Slender mountain mint  | Pycnanthemum tenuifolium         | White           | 3              | М                     |
| 1:                                                 | Swamp milkweed         | Asclepias incarnata              | Pink            | 4              | М                     |
| 13<br>14<br>15<br>16<br>Summer to Fall<br>17<br>18 | False boneset          | Brickellia eupatorioides         | White           | 4              | L                     |
|                                                    | Field thistle          | Cirsium discolor                 | Pink / purple   | 7              | L                     |
|                                                    | Maximilian sunflower   | Helianthus maximiliani           | Yellow / brown  | 10             | L                     |
|                                                    | New England aster      | Symphyotrichum novae-angliae     | Pink/purple     | 6              | М                     |
|                                                    | Sawtooth sunflower     | Helianthus grosseserratus        | Yellow          | 10             | М                     |
|                                                    | 7 Stiff goldenrod      | Oligoneuron rigidum var. rigidum | Yellow          | 5              | М                     |
|                                                    | Tall blazing star      | Liatris aspera                   | Pink / purple   | 3              | L                     |
|                                                    | Tall boneset           | Eupatorium altissimum            | White           | 6              | L/M                   |
|                                                    | Whorled milkweed       | Asclepias verticillata           | White           | 3              | L                     |
|                                                    | 1 Wild bergamot        | Monarda fistulosa                | Pink / purple   | 5              | L/M                   |
|                                                    | Shrubs and Trees       |                                  |                 |                |                       |
| Spring 2                                           | 2 Wild plum            | Prunus americana                 | White           | 35             | М                     |
| Summer to Fall                                     | Common buttonbush      | Cephalanthus occidentalis        | White           | 12             | Н                     |
|                                                    | Showy goldenrod        | Solidago speciosa                | Yellow          | 6              | М                     |
| 13                                                 | 14                     | 15                               | 17              |                | 18                    |



# **Notes**

This list of monarch nectar plants for Midwest region was produced by the Xerces® Society. For more information about monarch conservation, please visit <u>www.xerces.org</u>



## All species perennials, unless otherwise noted.

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.

Drought tolerant. Slow growing but long lived.

Be sure to give it the water it needs during droughts

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).

Easy to grow, with large flowers that attract many bees and butterflies

Attracts a huge diversity of pollinators. Foliage is edible.

Monarch caterpillar host plant.

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.

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.

Has delicious fruit. Host plant for some butterflies.

Fragrant, showy flowers that attract butterflies.

Very showy flowers. Spreads aggressively via rhizomes in moist soil



# **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 (*Buddleja* spp.) and English ivy (*Hedera helix*), 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 (Asclepias curassavica) 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: <a href="https://tinyurl.com/89cmcaeb">https://tinyurl.com/89cmcaeb</a>.

# **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: xerces.org/pesticides.

# **Additional Resources**

### **Publications & Resources**

- 100 Plants to Feed the Monarch by The Xerces Society: xerces.org/books
- Gardening for Butterflies by the Xerces Society: xerces.org/books
- Attracting Birds, Butterflies, and Other Backyard Wildlife: https://tinyurl.com/2p8c7zim
- Conservation Status and Ecology of the Monarch Butterfly in the U.S. Report: xerces.org/us-monarch-consv-report
- Pollinator Plants of the central U.S.: Native Milkweeds: http://bit.ly/1z7CX4U
- Milkweed Seed Finder: xerces.org/milkweed-seed-finder

# FEED THE MONARCH





### Websites

- The Xerces Society: xerces.org/monarchs
- Monarch Joint Venture: monarchjointventure.org/resources
- Natural Resources Conservation Service: <a href="mailto:nrcs.usda.gov/programs-initiatives/monarch-butterflies">nrcs.usda.gov/programs-initiatives/monarch-butterflies</a>
- National Wildlife Federation: <a href="mailto:nwf.org/butterflies">nwf.org/butterflies</a>

# Community Science Efforts in the Midwest

- Monarch Watch Tagging Program: monarchwatch.org/tagging
- Journey North: <u>journeynorth.org/monarchs</u>
- Monarch Larva Monitoring Project: mlmp.org
- Project Monarch Health: monarchparasites.org

### **Data Sources**

Nectaring data and observations, background information, and other contributions to this publication were taken from the published literature and generously provided by multiple researchers, gardeners, partners, and biologists. For the full list of data sources, please visit our website: xerces.org/monarch-nectar-plants.

Have you seen monarchs on native nectar plants?

Share your monarch nectar plant observations with Xerces at <a href="https://tinyurl.com/XercesMNPO">https://tinyurl.com/XercesMNPO</a>

# Acknowledgments

Funding provided by the Monarch Joint Venture and USDA Natural Resources Conservation Service. Additional support comes from Cascadian Farm, Ceres Trust, Cheerios, CS Fund, Disney Conservation Fund, The Dudley Foundation, The Edward Gorey Charitable Trust, General Mills, Irwin Andrew Porter Foundation, National Co+op Grocers, Nature Valley, Turner Foundation, Inc., Whole Foods Market and its vendors, and Xerces Society Members. This material is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number 65-7482-15-118. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture.

Written by Candace Fallon, Nancy Lee Adamson, Sarina Jepsen, Anne Stine, Mace Vaughan, and Ray Moranz. Designed by Kaitlyn Rich. Formatted by Michele Blackburn & Sara Morris. Photo CREDITS: Aaron Gunnar\*\*\*\*: 1. John Beetham (Dendroica cerulea)\*: 2. Peter Gorman\*: 3 (cover), 5, 6, 24 (cover). John Flannery\*: 3 (inside). Uli Lorimer\*: 4, 13, 15. Matt Flower\*\*\*\*: 7. Sarah Foltz Jordon, Xerces Society: 8 (cover & inside). Jim Hudgins (USFWS)\*: 9. Nancy Lee Adamson, Xerces Society: 10. Kelly Gill, Xerces Society: 11. Joshua Mayer\*: 12. Judith Lopez Sikora\*\*\*\*: 14. Micael Rathwell\*: 16. Matt Lavin\*: 17. Deb Nitka: 18. Daniel Carter\*\*\*\*: 19. Al Fischer\*: 20. Jean Pawek\*\*\*: 21. John Hilty, Illinois Wildflowers: 22. Desmodium\*\*: 23. Janet and Phil Hauck\*: 24 (inside). \*Courtesy of flickr.com/\*\*Wikimedia Commons/\*\*\*CalPhotos/\*\*\*iNaturalist. Photographs remain under the copyright of the photographer.

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