Monarch Nectar Plants Southwest



Left to right: monarch on rubber rabbitbrush, lyreleaf greeneyes, and monarch on annual sunflower.

The Southwest is a land of geological wonders and climatic extremes. Covering the bulk of Arizona and New Mexico, as well as sections of California, Nevada, Utah, Colorado, and Texas, the southwest region boasts surprisingly lush riparian zones, high deserts, extensive sand dunes, wild cactus gardens, and isolated mountain ranges. Precipitation is minimal except during the summer monsoon season, when violent rainstorms can strike the region. The incredible diversity of landscapes and plant communities has contributed to highly diverse pollinator assemblages, from the hummingbird-sized sphinx moth to the brightly colored milkweed butterflies—the monarchs, queens, and soldiers.

Each spring, monarchs leave hundreds of overwintering sites along the California coast and fan out across the western landscape to breed and lay eggs on milkweed, the monarch's host plant. Several generations are likely produced during this time. In the fall, adults from throughout the western U.S. migrate back to overwintering sites in California and central Mexico, where they generally remain in reproductive diapause until the spring, when the cycle begins again. However, not all monarchs leave the Southwest – some remain in sheltered riparian areas of Arizona to spend the winter.

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, including loss of milkweed from extensive herbicide use, habitat loss and degradation from other causes, natural disease and predation, climate change, and widespread insecticide use. 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. 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 the most significant action you can take to support monarch butterfly populations. This guide features native Southwest 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. For a list of native plants that host butterflies and moths specific to your zip code see nwf.org/nativeplantfinder. The species in this guide will be adaptable to growing conditions across most of the Southwest. Please consult regional floras (such as SEINet, swbiodiversity.org/seinet/) or the Biota of North America's North American Plant Atlas (bonap.net/napa) for details on species' distributions in your area.

















Notes

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



All species perennials, unless otherwise noted.

Drought tolerant.

Not as drought tolerant as habitat suggests.

Monarch caterpillar host plant.

Annual plant. Blooms year-round in warm weather.

Annual plant. Prefers moist soils.

Biennial plant. Drought tolerant.

Annual. A favorite of many bee species. Easy to establish and tolerant of clay soils.

Annual plant. Can be common on disturbed soils. Good late season nectar plant for butterflies.

Magnet for monarchs and queens. Handles summer heat, winter cold.

Prefers moist soils. Attracts native bees.

Annual plant. Prefers wet areas and can be used in bioswales. Attracts beneficial insects and butterflies in the fall.

Fantastic butterfly plant.

Good wildlife plant. Attracts butterflies and other insects. Seeds eaten by birds.

Extremely drought tolerant.

Extremely drought tolerant.

Prefers disturbed soils. Good for soil stabilization.

Fragrant flowers that hummingbirds love.

Flowers are fragrant. Attracts butterflies and other insects.

Deep taproot reaches water table.

Tough and easy to grow but needs moisture. Great for butterfly gardens.

Fragrant, showy flowers that attract butterflies.

Can be invasive in disturbed soils.

Can be used for streambank stabilization.

Fragrant flowers in spring and large red fruits in fall. Drought tolerant.

Planting for Success

Monarch nectar and host 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 can be present year-round in the Southwest, although this can vary depending on your elevation.

Why Plant Native?

Although monarchs use a variety of nectar plant species, including exotic invasives such as butterfly bush (*Buddleja* spp.), 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: https://tinyurl.com/89cmcaeb.

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





- Attracting Birds, Butterflies, and Other Backyard Wildlife: https://tinyurl.com/2p8c7zjm
- Conservation Status and Ecology of the Monarch Butterfly in the U.S.: xerces.org/us-monarch-consvreport
- Guide to Milkweeds and Monarchs in the Western U.S.: xerces.org/western-us-monarch-guide
- Milkweed Seed Finder: xerces.org/milkweedseed-finder







Websites

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

Community Science Efforts in the Southwest

- Southwest Monarch Study: <u>swmonarchs.org</u>
- Western Monarch Milkweed Mapper: monarchmilkweedmapper.org
- 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 see the Monarch Nectar Guides page on our website: xerces.org/monarch-nectar-plants.

Have you seen monarchs on native nectar plants?

Share your monarch nectar plant observations with Xerces at https://tinyurl.com/XercesMNPO

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