

Monarch Nectar Plants

Great Basin



Left to right: Monarch on showy milkweed, common sunflower, and monarch on salt heliotrope.

The Great Basin encompasses the vast majority of Nevada as well as half of Utah and small sections of the surrounding states of Oregon, Idaho, and California. It is a region of extremes, known for its basin and range topography and arid climate. The amazing diversity of habitats, from high alpine mountain ranges to dry desert valleys, supports an impressive array of plant and animal species, including the monarch butterfly, which can be found in protected canyons and riparian areas as well as along irrigation ditches and roadsides throughout the summer.

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, western monarchs 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.

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. Caterpillars, on the other hand, are completely dependent on their milkweed host plants. Inadequate milkweed or nectar food sources at any point may impact the number of monarchs that successfully arrive to 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. This guide features native plants from the Great Basin that have documented monarch visitation, bloom during the times of year when monarchs are present in this region, are commercially available, and are known to be hardy. The list also includes moisture requirements, so that you can choose plants to create a drought-tolerant monarch garden, if needed. 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 nwf.org/nativeplantfinder. The species in this guide will be adaptable to growing conditions across most of the Great Basin region. Please consult regional floras, the Biota of North America's North American Plant Atlas (bonap.net/napa), or the USDA's PLANTS database (plants.usda.gov) for details on species' distributions in your area.

					
Bloom	Common Name	Scientific Name	Flower Color	Max. Height	Water Needs
Spring to Summer	Forbs			(Feet)	Low, Med, or High
	1 Sanddune wallflower	<i>Erysimum capitatum</i>	Red / orange / yellow	2	L
	2 Spreading dogbane	<i>Apocynum androsaemifolium</i>	White / pink	3	M
	3 Wavyleaf thistle	<i>Cirsium undulatum</i>	Purple / pink / white	4	L
Spring to Fall	4 Yellow spiderflower	<i>Cleome lutea</i>	Yellow	3	L
	5 Salt heliotrope	<i>Heliotropium curassavicum</i>	White	1	M
Summer	6 Showy milkweed	<i>Asclepias speciosa</i>	Pink / green / purple	3	M
	7 Mountain monardella	<i>Monardella odoratissima</i>	White / blue / purple	1	M
	8 Nettleleaf giant hyssop	<i>Agastache urticifolia</i>	Purple/red	2	M
Summer to Fall	9 White panicle aster	<i>Symphotrichum lanceolatum</i>	White / pink / purple	5	M
	10 Common sunflower	<i>Helianthus annuus</i>	Yellow	8	M
	11 Fireweed	<i>Chamerion angustifolium</i>	Pink	7	M
	12 Nevada goldenrod	<i>Solidago spectabilis</i>	Yellow	6.5	M
	13 Nuttall's sunflower	<i>Helianthus nuttallii</i> ssp. <i>nuttallii</i>	Yellow	10	M / H
Fall	14 Rocky Mountain beeplant	<i>Cleome serrulata</i>	White / pink	4	M
	15 Sulphur-flower buckwheat	<i>Eriogonum umbellatum</i>	White / yellow	3	L
	16 Canada goldenrod	<i>Solidago canadensis</i>	Yellow	5	M
Winter to Fall	17 Desert globemallow	<i>Sphaeralcea ambigua</i>	Orange	3	L
Shrubs, Trees, and Vines					
Spring	18 Black chokecherry	<i>Prunus virginiana</i> var. <i>melanocarpa</i>	White	40	L / M
	19 Golden currant	<i>Ribes aureum</i>	Yellow	6	L
Spring to Summer	20 Purple sage	<i>Salvia dorrii</i>	Blue / purple	3	M
	21 Woods' rose	<i>Rosa woodsii</i> var. <i>ultramontana</i>	Pink	3	M
Summer to Fall	22 Rubber rabbitbrush	<i>Ericameria nauseosa</i>	Yellow	5	L
	23 Yellow rabbitbrush	<i>Chrysothamnus viscidiflorus</i>	Orange / yellow	3	L
Winter to Summer	24 Arroyo willow	<i>Salix lasiolepis</i>	Yellow / purple	16	M
					



Notes

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



All species perennials, unless otherwise noted.

Biennial plant. Drought tolerant once established.

Spreads aggressively via rhizomes. Use only in large properties.

Biennial. Drought tolerant.

Annual plant. Prefers sandy or disturbed soils. Bees are attracted to its yellow flowers.

Annual plant. Tolerates saline or alkaline soils.

Monarch caterpillar host plant.

Needs regular water and full sun for best flowering.

Establishes better from transplant than seed. Tolerates clay soil and wet conditions.

Tolerant of moist, disturbed areas.

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

Can be aggressive in moist gardens.

Nectar plant for many butterfly species.

A showy perennial sunflower that prefers moist soils.

Annual plant.

Attracts many species of bees and butterflies. Propagate only by seed.

Drought tolerant once established.

Drought tolerant once established. Can be short-lived but usually self-seeds.

Flowers attract early butterflies. Birds will eat the fruits.

Has fragrant flowers and delicious berries.

Excellent plant for dry desert gardens. Attracts birds, butterflies, and moths.

Fragrant flowers and large rosehips. Excellent bird plant.

Very drought tolerant.

Nectar plant for many butterfly species.

Tolerates sand and seasonal flooding; good for erosion control. Important wildlife plant.



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 April through November in the Great Basin, 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 saltcedar (*Tamarix ramosissima*) and purple loosestrife (*Lythrum salicaria*), 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

- 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/2p8c7zjm>
- Conservation Status and Ecology of the Monarch Butterfly in the U.S.: xerces.org/us-monarch-conservation-report
- Guide to Milkweeds and Monarchs in the Western U.S.: xerces.org/western-us-monarch-guide
- Native Milkweeds: Great Basin Pollinator Plants: xerces.org/node/439
- Milkweed Seed Finder: xerces.org/milkweed-seed-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 Great Basin

- Western Monarch Milkweed Mapper: monarchmilkweedmapper.org
- Southwest Monarch Study: swmonarchs.org
- Monarch Watch Tagging Program: monarchwatch.org/tagging
- Journey North: journeynorth.org/monarchs
- 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

<https://tinyurl.com/XercesMNPO>

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