



MONARCH JOINT VENTURE

Partnering across the U.S. to conserve the monarch migration

www.monarchjointventure.org

Monarch Joint Venture

The Monarch Joint Venture (MJV) is a partnership of federal and state agencies, non-governmental organizations, businesses and academic programs working together to protect the monarch migration across the United States.

Our mission is to protect monarchs and their migration by collaborating with partners to deliver habitat conservation, education, and science across the United States.

Our vision is thriving monarch populations that sustain the monarch migration into perpetuity and serve as a flagship for the conservation of other plants and animals.

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Gardening for Monarchs:

Creating habitat for monarch butterflies and other pollinators

Habitat needs

Habitat for pollinators has declined due to, real estate and agricultural development, increased use of herbicides and climate change. However, habitat conservation can start in your backyard. Planting a butterfly garden with milkweed and other wildflowers provides a haven for monarchs and other pollinators to thrive!

Good monarch habitat must meet the needs of all four monarch life stages (egg, larva, pupa, adult). Female monarchs lay eggs on milkweed host plants because their caterpillars only eat milkweed leaves. Once the caterpillar is fully developed, it often leaves the host plant to find a safe place to pupate, or form its chrysalis. After the adult butterfly emerges, it drinks nectar from a variety of different flowering plants. Thus, monarchs need both milkweed and nectar (blooming) plants to reproduce. As they migrate, they need nectar plants to fuel their long flight and store fats, or lipids, to survive the winter. Monarch-friendly gardens should contain a diverse set of wildflower species, including milkweed, to support both breeding and migration. Using only native milkweed in butterfly gardens is extremely important. It is extremely important, for example, to avoid using non-native tropical milkweed in areas near the overwintering sites in California.



Pollinator friendly gardens can be added in a variety of areas. Start by replacing a patch of lawn or bare ground, or simply add native plants to an existing garden. Planning and creating a butterfly garden is a great way to enjoy time outdoors and explore nature. This handout gives an overview on how to prepare, plant, and maintain a monarch-friendly garden.

Picking a site

Choose a sunny spot. Many native grassland plant species prefer full sun, and butterflies use sunlight to warm up. Add rocks to create basking zones for butterflies.

Include windbreaks. Butterflies are light-weight, so providing a wind break helps them feed or lay eggs more efficiently. A fence, shrub, or a wall can serve as a windbreak, and can also be a good place for a monarch to pupate.

Prepare the soil. Remove lawn or other unwanted plant cover, and rake or lightly till the soil to prepare it for planting. Bring in more soil if needed.

Take note of your soil type. If you know your specific soil type, research it online or talk to your local nursery to see what species are recommended for the conditions at your site. Minimally, consider whether the area is wet or dry, and adjust your plant selections accordingly.

The Importance of Monarch Conservation

The monarch butterfly is a flagship species for conservation. As a national partnership organization, the Monarch Joint Venture utilizes the social and cultural presence of monarchs to promote conservation for more than just monarchs.

With a tremendous geographic range and amazing migration, monarchs draw attention from all over North America. Many other pollinators benefit from monarch conservation efforts, as people throughout the entire breeding, migration, and overwintering range work to preserve and create habitat. Adding native milkweed to an area provides food for monarch caterpillars, and nectar for a diversity of other pollinators.

Selecting your plants

Find nurseries that sell native, untreated plants. Plants that are native to your area are better suited to live there, and are typically pretty hardy. Perennial plants come back year after year, so a perennial garden is easier to maintain over time. Importantly, ensure plants you purchase are not treated with systemic insecticides, which can harm insects that use the plant well after the insecticide has been applied. The MJV website has a *Milkweed and Wildflower Vendor Map* to help locate nurseries and other vendors in your area.

Decide on using plant plugs or seeds. Potted plants, or plugs are effective for small garden areas or to add existing gardens. With roots already well-formed, plugs establish more readily and can be more successful than seeds. Planting from seed is a less expensive option but may take longer for the site to flourish. You can also start your own seeds inside prior to planting. Use seeds, plugs, or a combination of both.

Aim for high species diversity. Select an array of plants that flower at different times to attract pollinators throughout the growing season. Plants that bloom early are critical for monarchs during the spring migration. Late blooming plants are critical during fall migration. Summer blooming species bolster monarch reproduction. Find localized nectar plant lists from our partners on the MJV website.

Include larval host plants.

Monarchs need milkweed, so include species of milkweed native to your area. For a list of native milkweeds, see the MJV's *Milkweed Information Sheet*. Milkweeds are also a good source of nectar for other pollinators. Remember, chewed leaves are a sign of insects using the plant, and that is a good thing!

Planting the garden

Draw up a plan. First, develop a plan for how many plants you need, what other features (for example a path or bench) to include, and what type of equipment will be required. Grouping plants by species can provide large splashes of color that are attractive to butterflies. Reds, oranges, yellows and purples are particular favorites. Arrange them so that shorter plants are in front of taller ones for better viewing.

For plugs: Keep plants well-watered prior to and after planting. When you are ready to plant, dig a hole just large enough for the plug's roots. Use soil to cover the roots so that

only the leaves and stem of the plant are above ground. Add straw or grass mulch around the plants to retain water in the soil and prevent weed growth. Water newly planted plugs.

For seeds: Most native seeds are distributed naturally at the soil surface, so only need to be raked in or planted shallowly. Direct seed to soil contact is most important. In some regions, native species require cold moist stratification, or exposure to winter-like conditions, so planting or spreading seed in the late fall or winter can be an effective strategy. If planting in the spring, plant after the risk of frost has passed.

Maintenance

Water plants until they are well established. If planted plugs are not getting natural moisture, water them regularly for the first few weeks. Keep in mind that additional water may be needed during warm, dry spells. Once established, most native plants do not need watering.

Control the weeds. Get out early and often to pull weeds. Avoid using herbicides to rid your garden of unwanted plants, they can harm those you want. Do not use insecticides in your garden.

Register your site. Registering your site helps conservation groups know where habitat exists, and it provides you an opportunity to showcase the habitat with a sign or other educational opportunities. Find more information on pollinator habitat certification programs like the Monarch Waystation Program on our website!

Enjoy your hard work! Take time to observe the progress of your garden, see what species come to use it, and share it with others!



Enjoy your hard work! Take

Additional features of good pollinator habitat

1. Keep dead trees and wood piles to serve as winter shelters. While monarchs migrate in the fall, many other butterflies and pollinators may overwinter in the area and use these features as shelter.
2. Consider other wildlife friendly practices. Bird feeders and a heated bird bath can help resident birds in the winter months. Bee nesting boxes can help native bees overwinter. Having bare ground can help ground nesting pollinators find a spot for the winter.



www.plantmilkweed.org
www.monarchjointventure.org