

Monarchs & Milkweed

A Montana, Rocky Mountains & Northern Plains Guide

Essential Elements for Your Monarch Garden

 **Food:** While Milkweed is crucial for Monarchs as caterpillars, it is also important to plant other nectar providing plants to diversify their food sources in their adult stages. By doing so, these plants serve as a food source for countless other pollinator species. Plant native nectar providing plants specific to your region by using Nectar Plants for Monarchs, a guide from the National Wildlife Federation.

 **Water:** Shallow water sources are best for Monarchs and other pollinators. Create these by adding small pieces of gravel to birdbaths or create shallow muddy patches in and around your yard.

 **Cover:** All butterflies need shelter from harsh weather and predators. Shelter options range from brush piles, dense patches of shrubs, or a bed of at least 10 plants clustered together.

 **A Place to Raise Young:** All butterflies require a host plant and for Monarchs, that is Milkweed. In fact, without milkweed, Monarchs cannot lay their eggs. There are numerous native milkweed species, in Montana, in the Rocky Mountain region, Showy milkweed, *Asclepias speciosa*, is best; while in the Northern Plains region, Common milkweed, *Asclepias syriaca*, is preferred.

 **Practice Sustainable Gardening:** Monarch populations have plummeted due to the decline of milkweed and increased use of insecticides, affecting all Monarch life stages. Practice organic gardening and the use of native plant species to combat this decline.

Planting Milkweed

About:

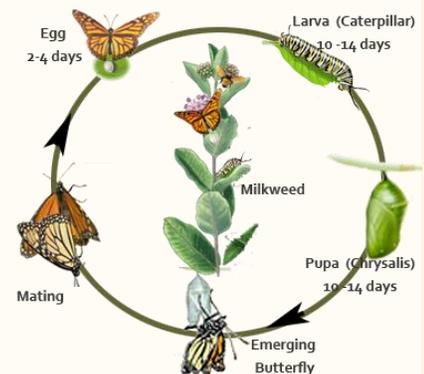
- It is best to plant native seeds in late fall, just before the snow hits. This is because, in theory, the fresh snowfall will protect newly planted seeds from birds and other predators. November is typically a safe time to try planting milkweed in Montana.
- Milkweed seeds are found in pods with each seed connected to what is known as floss, a white fuzzy part, essential for natural seed dispersal.

How to Plant:

- If the seeds are still in the pods, it is best to remove the seeds and de-floss them. It is okay to leave some floss behind when cleaning. Once the seeds are cleaned, begin by tilling a small patch of earth, roughly 2 feet by 2 feet. Be sure and remove all competing vegetation from the patch. Once the patch is clear, it is best to scatter the seeds in dense clumps. Next, cover the seeds with roughly a 1/4 inch of soil or leaves. Once planted it is very important the seeds get ample amounts of water until they are fully established.

Toxic:

- Milkweed is actually a poisonous plant! The Monarch caterpillar, which survives on a diet completely comprised of Milkweed, digests this toxin, resulting in their own toxicity!



Gardening for Monarchs & Other Pollinators

Tips & Design Ideas

Life of a Monarch Butterfly



How do Monarchs find Milkweed?

Monarchs use sensory receptors to locate milkweed, primarily sight and smell. However, their sensory receptors are not like those in humans. For example, monarchs distinguish what plant species they have landed on through smell and taste receptors in their legs and antenna. In addition, Monarchs have compound eyesight, meaning they see the world in thousands of separate images, sort of like seeing the world in a series of still photos rather than a movie. They can also detect ultraviolet light radiating from flowers helping them identify different species.

Life Stages

Once Monarchs have made their migration north, they lay eggs between 2-5 weeks. During this time female butterflies can lay anywhere from 300-400 eggs. Once eggs are laid, they remain dormant for roughly 4 days. They hatch into caterpillars who survive off of the milkweed for 9-14 days before transforming into a chrysalis, or pupa. Here they remain still for 9-15 days, before emerging as adult butterflies. This new generation will migrate to Mexico, their journey sometimes reaching 3,000 miles! Monarchs remain on their winter grounds for 7-9 months, before migrating north again.

Tips and Design Ideas

 **Pick a Sunny Spot:** Most pollinators depend on nectar-producing plants usually growing in sunny areas. It is best that your pollinator garden receives at least 6 hours of sunlight a day.

 **Prepare a Planting Bed:** When preparing to plant it is important to first remove grass, weeds, and other competing plants from the area. Soil health should also be assessed. If the soil is nutrient-poor, compact, or clay-heavy, it can be remedied by gently adding compost to loosen and enrich the soil. If you are just starting off, try to aim for a bed at least 10 feet by 10 feet, or multiple smaller beds. Also, think about how you can diversify your traditional lawn to create more habitat for wildlife.

 **Choose Native Plants:** Native plants are usually the best, because not only have they co-evolved with the native wildlife, they are better suited for the climate, i.e. drought resistant.

 **Plant Densely and Diversely:** Due to co-evolution, native plants attract a higher number of native pollinators. This is because many plants have special ultraviolet designs and signals that draw specialized pollinators and other wildlife. Also, be sure to keep it clumpy. By planting in clusters, you are effectively creating pollinator beacons throughout your lawn.

 **Think Seasonally:** When designing your garden, it is important to think seasonally. Make sure you have something blooming in spring and summer, but also into fall and winter to support various wildlife.

Garden For Wildlife

In designing and planting a pollinator garden, you are gardening with purpose. The National Wildlife Federation's program Garden for Wildlife™ is designed to help you create habitat for pollinators, as well as other wildlife. As we begin to transform our small pieces of earth into wildlife sanctuaries, we begin restoring habitat for our native wildlife species, in and around our communities, ensuring a better tomorrow.

Resources

Monarch Mission: <https://www.nwf.org/Eco-Schools-USA/Resources/Curriculum/Monarch-Mission>

Nectar Plants for Monarchs: <https://www.nwf.org/Garden-for-Wildlife/About/Native-Plants/Monarch-Nectar-Guides>

The Story of an Organism: Common Milkweed: <https://natureinstitute.org/txt/ch/Milkweed.pdf>