

## Gardening to Attract and Produce Monarch Butterflies

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There are probably one or two Monarch butterflies in your landscape already. Most of the rest of migrants from the wintering grounds near Mexico City will soon show up. It is their last destination before they die but not before they lay a batch of eggs on existing milkweed plants and produce a new generation to continue the trek north into Canada. At least 3 generations will produce caterpillars that become butterflies before the population reaches the northern extent of its range and the final new generation of the year heads back south to revisit us in September to November.

You are right if you think the life cycle sounds challenging. The beautiful butterflies are subject to bad weather, pesticide applications, destruction of the winter habitat and a dwindling milkweed availability. In 2013, influenced by an especially bad weather situation all the factors combined to devastate and reduce the Monarch population by 59%. It has stabilized somewhat since then but is still reduced and threatened.

Governments, naturalists, researchers, and gardeners have mobilized to identify and address the weak links in saving the Monarch butterfly. The final result is still in question, but it looks like the initiatives can have significant effect. Visit the internet to learn about the large-scale initiatives conducted by cities, universities and nature organizations.

If you are a gardener, here are some things you can do in your backyard and make a real contribution to restoration of the Monarch population.

- 1) Monarchs only lay their eggs on milkweed. The egg laying largely occurs in our area of Texas in late spring. It is desirable to establish native milkweed such as butterfly weed (*Asclepias tuberosa*) and green milkweed (*A. viridis*) in our landscapes but they are not easy to establish. Tackle the task but in the meantime plant tropical milkweed (*A. curassivca*). It is easy to grow and has an attractive flower to provide nectar for Monarchs and other butterflies in addition to being a favored egg laying site. Grow milkweed in full sun. Deer do not eat milkweed.
- 2) Plant other nectar sources such as blue curl (*Phacelia* sp.), mist flower, zinnias, lantanas, and salvias to provide constant nectar from early spring through late fall. For an interesting addition to the nectar sources look at porter weed. Porter weed is an exotic blooming plant whose small intensely colored flowers produce a potent nectar that is sought after by hummingbirds and other butterflies in addition to Monarchs. Deer do not eat lantana and salvias. The blue curl and *Salvia coccinea* grow in the shade as well as full sun.
- 3) Modify your pesticide use practices by avoiding general applications in favor of targeted low toxicity applications. Actions such as mosquito control to protect your family from the viruses they may carry are necessary but explore the use of innovative new treatments that reduce general sprays. In terms of your vegetables and flowers keep in mind that home gardeners don't need to maximize production. It will not reduce your family's nutritional or income situation to modify insecticide use to favor more butterfly production.

One of the issues for you to consider is, "if it is desirable for Monarchs to lay eggs in the fall in Central and South Texas?" The problem results because a new generation may not have the time to make it to

the wintering grounds if they hatch in late fall. Some naturalists think the fall egg laying is a special problem if tropical milkweed is growing in the landscape. They suspect that the availability of its long-lasting foliage may encourage late egg laying. The native milkweeds decline before the fall migrants arrive. One way to reduce the temptation may be to cut down the tropical milkweed foliage at ground level about October 1. This is not a problem in terms of nectar supply if you have the mistflower, zinnias, salvia, and lantanas planted.

Another interesting factor is that the closely related Queen butterflies are prone to lay their eggs over a longer season. There is no problem when the Queens lay eggs in the fall, they apparently don't migrate. Recognize Queen caterpillars by the three antennae-like appendages arranged along the body, one in the middle and one at each end. The Monarch caterpillar looks like the Queen caterpillar, but it only has 2 appendages, one at each end of the body.