

What are Native Plants and Why Should We Plant Them?

Native Plants include herbaceous plants, grasses, shrubs, and trees. Sometimes referred to as straight-species natives or wild-type plants, they evolved over a period of time sufficient to develop complex and essential relationships with pollinators, birds, and other wildlife species in a given ecological community. Native plants were established here long before the arrival of European colonists.

In the Northeast, we have many wonderful native perennials, shrubs, trees, and grasses that thrive in a variety of light and soil conditions. Garden perennials such as Pycnanthemum, Lobelia, and Monarda attract many species of bees, butterflies and hummingbirds. Native shrubs and trees are attractive and provide many benefits in our landscapes. Spicebush, Willow, Blueberry and Cherry provide early-season blooms and many produce nutritious fruits. Trees such as Oak, Maple, Cherry and Birch have attractive forms providing shade in summer and gorgeous color in fall. Many native trees, shrubs and grasses provide winter interest when other plants are sleeping.

Why are Native Plants So Important?

Native plants are important for their ability to support wildlife, especially our plant-eating insects (herbivores) that in turn provide protein-rich food for a large percentage of wildlife species. Insects are extremely important to the health of all terrestrial ecosystems on which we humans depend. Without insects, higher life forms would cease to exist. For example, most baby birds are fed insects exclusively. And because they grow quickly from nestlings to adults, baby birds eat tons of insects. In springtime there is a flurry of activity by parent birds as they try to keep up with their babies' insatiable appetites. This activity continues for weeks until fledglings are able to survive on their own. No insects, no birds.

Butterfly caterpillars exemplify the important relationship between insects and native plants. All species of butterfly caterpillars require specific host (food) plants in order to grow and develop into adult butterflies. The Monarch butterfly caterpillar, for example, requires plants in the milkweed family (Asclepias). Milkweeds are the only food the Monarch caterpillar can eat.

Native plants evolved over millions of years to attract specific pollinators with unique shapes, sizes and colors. These plants better meet their nutritional needs providing the best sources of pollen and nectar for a plethora of pollinators which include many species of bees, butterflies, flower flies, beetles, hummingbirds, and moths (pollinators of the night-shift and important food for birds). Native plants also support beneficial insects such as lady beetles and lacewings. These insects are important for controlling many garden pests.

Best Things about Natives

1. They flourish without synthetic pesticides.
2. Require less care since they are adapted to our local climate and soils.
3. Rarely need watering once established.
4. Provide food and cover for wildlife.
5. Contribute to biodiversity.
6. Native trees keep our air and waterways clean and prevent soil erosion.
7. Native trees sequester carbon more efficiently than non-natives.
8. Native plant species connect us to our unique natural surroundings.
9. Native Plants are Beautiful!

If an introduced species has been in this country long enough, doesn't it become native?

People often equate a plant's ability to naturalize with it "becoming native". While many introduced plants have been in this country for many years and are established here, they are unrecognizable to our insects and offer little benefit. It would take thousands or even hundreds of thousands of years before an introduced plant could play the same role in nature's food web as plants that evolved with our pollinators and other important insects. Author Doug Tallamy believes "Native" is not a label earned by a plant after a given period of time. Instead, the term describes its function. "a plant should be considered a native when it acts like a native – that is, when it has achieved the same ecological productivity that it had in its evolutionary homeland."

You Can't Fool Mother Nature

A cultivar is a version of a plant bred by a horticulturist through cloning or crossing two species to achieve desirable traits such as color and form. Cloning (vegetative cuttings) to produce **native cultivars** is a common practice in the nursery industry. These plants are exact copies of the mother plant and may represent only a fraction of the natural diversity of the species. Some issues with cultivars include:

- They may not provide cues to attract pollinators.
- Specialized colors are not attractive to pollinators.
- Pollinators cannot access double flowers for pollen or nectar.
- Cultivars that are too changed from original plant contain less pollen and nectar.
- Some cultivars no longer produce pollen or nectar at all.

While straight-species natives (wild-type plants) are generally considered the best choice for providing optimal benefit to pollinators, it is important to note that more research is needed to answer questions regarding the benefit of cultivars compared to straight-species native plants. Experts caution that cultivars need to be judged on an individual basis for their value to pollinators and other wildlife, however research shows the higher the degree of horticultural modifications, the less likely the plant will be valuable to pollinators. Research is ongoing but the following is what the science has shown so far:

- Plants with dark colored leaves contain toxic anthocyanins and are avoided by caterpillars.
- Double flowers have no pollinator value. Pollen and nectar are non-existent or inaccessible.
- Heavily variegated leaves are not favored by caterpillars.
- Plant structure and density are hugely important to birds.

Many Introduced Plants are Harmful to Native Plants and Animals

Invasive plants are non-native species that spread to natural areas, displacing native plants and threatening diversity of native birds, insects, and other animals. They grow aggressively, spread quickly and are difficult to control. In this way, they out-compete native flora. Invasive plants can be extremely harmful to pollinators that require specific plants for survival. Swallow-worts (*Cynanchum*), for example, are poisonous to Monarch butterfly caterpillars. If a female mistakenly lays her eggs on this plant, the caterpillars will not survive; another factor contributing to Monarch decline. It is important to learn to recognize these invasive species. Go to www.cipwg.uconn.edu for information about CT invasive plants.

"We are replacing native plants with alien species at an alarming rate, especially in the suburban garden on which our wildlife increasingly depends."

"A plant that has fed nothing has not done its job."

- Douglas J. Tallamy, Bringing Nature Home

Resources for Native Plants

www.propollinators.org

www.pollinator-pathway.org

<https://xerces.org/pollinator-conservation/plant-lists/pollinator-plants-northeast-region/>

<https://xerces.org/Monarch-conservation/plant>

www.earthtonesnatives.com

<https://www.anativeplantnursery.com>

www.northeastpollinator.com



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