

Native Plants

**What are they?
Why Should They Be Used?**

Presented by

Joseph Hill

Advanced Master Gardener

West Michigan Green Gardeners

www.WMiGreenGardeners.com

JoeHill@WMiGreenGardeners.com

What is a Native Plant?

Native plants (also called indigenous plants) are plants that have evolved over thousands of years in a particular region. They have adapted to the geography, hydrology, and climate of that region. Native plants have evolved together with other plants in communities therefore; they provide a habitat for a variety of native wildlife species such as songbirds and butterflies.

What is a Non-Native Plant?

Non-native plants (also called non-indigenous plants, invasive plants, exotic species, or weeds) are plants that have been introduced into an environment in which they did not evolve. Introduction of non-native plants into our landscape has been both accidental and deliberate.

In general, aggressive, non-native plants have no enemies or controls to limit their spread. As they move in, complex native plant communities, with hundreds of different plant species supporting wildlife, will be converted to a monoculture. This means the community of plants and animals is simplified, with most plant species disappearing, leaving only the non-native plant population intact.

For example, purple loosestrife colonizes wetland areas, replacing native plants unable to compete for available sunlight, water, and nutrients. Wetlands infested with purple loosestrife lose as much as 50% of their original native plant populations. This limits the variety of food and cover available to birds and may cause the birds to move or disappear from a region altogether.

Why Should I Use Native Plants?

Native plants provide a beautiful, hardy, drought resistant, low maintenance landscape while benefiting the environment. Native plants, once established, save time and money by eliminating or significantly reducing the need for fertilizers, pesticides, water, and lawn maintenance equipment.

Native plants do not require fertilizers. Vast amounts of fertilizers are applied to lawns. Excess phosphorus and nitrogen (the main components of fertilizers) run off into lakes and rivers causing excess algae growth. This depletes oxygen in our waters, harms aquatic life and interferes with recreational uses.

Native plants require fewer pesticides than lawns. Nationally, over 70 million pounds of pesticides are applied to lawns each year. Pesticides run off lawns and can contaminate rivers and lakes. People and pets in contact with chemically treated lawns can be exposed to pesticides.

Native plants require less water than lawns. The modern lawn requires significant amounts of water to thrive. In urban areas, as much as 30% of the water consumption is used for lawn irrigation (60% on the West Coast). The deep root systems of many native Midwestern plants increase the soil's capacity to store water. Native plants can significantly reduce water runoff and, consequently, flooding.

Native plants help reduce air pollution. Natural landscapes do not require mowing. Lawns, however, must be mowed regularly. Gas powered garden tools emit 5% of the nation's air pollution. Forty million lawnmowers consume 200 million gallons of gasoline per year. One gas-powered lawnmower emits 11 times the air pollution of a new car for each hour of operation. Excessive carbon from the burning of fossil fuels contributes to global warming. Native plants sequester, or remove, carbon from the air.

Native plants provide shelter and food for wildlife. Native plants attract a variety of birds, butterflies, and other wildlife by providing diverse habitats and food sources. Closely mowed lawns are of little use to most wildlife.

Native plants promote biodiversity and stewardship of our natural heritage. In the U.S., approximately 20 million acres of lawn are cultivated, covering more land than any single crop. Native plants are a part of our natural heritage. Natural landscaping is an opportunity to reestablish diverse native plants, thereby inviting the birds and butterflies back home.

Native plants save money. A study by Applied Ecological Services (Brodhead, WI) of larger properties estimates that over a 20 year period, the cumulative cost of maintaining a prairie or a wetland totals \$3,000 per acre versus \$20,000 per acre for non-native turf grasses.

Seeding vs. Transplants

Sowing seeds is less expensive than landscaping with transplants. However, native plants grow slowly from seed, often not blooming until the third year. The first few years are spent growing long, extensive root systems. Weeds grow quickly. This is normal, so don't be discouraged.

Transplants grow more quickly than seeds, often blooming in the first year. Keep your costs down by buying the smallest plants available. Space the plants one foot apart and mark for later identification.

Which Plants Attract Birds and Butterflies?

There are several species of native wildflowers and grasses that will attract particular birds and butterflies, such as:

For song birds: Sunflowers, Rough Blazing Star, Purple Prairie Clover, Big Bluestem, Little Bluestem, Side Oats or Grama Grass, Switch Grass, Serviceberry, Hackberry, Dogwood, Juniper, Elderberry, and Hawthorn.

For hummingbirds: Columbine, Native Phlox, Native Honey- Suckle, and Cardinal Flower.

For butterflies: Milkweed, Aster, Purple Cone Flower, Rough Blazing Star, Native Phlox, Black-Eyed Susan, Coreopsis, Joe-Pye Weed, Goldenrod, Vervain, and Ironweed.

Questions to Ask When Buying Native Plants

1. Are the native plants locally grown or shipped in? Native plants which are locally grown are best suited to the regional climatic conditions.
2. Have the seeds been propagated in a nursery or collected from the wild? Seeds from the wild need to be protected so that we do not deplete our natural areas.
3. Will the native plants grow best in sun or shade? Survey your plot carefully.
4. What soil type is required? Is it sandy or loamy, wet or dry?
5. Which native plants grow well together? Call your local nature center to find out about plant communities.
6. How long will it take seeds to germinate or plants to mature?

The key to growing native plants is patience.

Maintenance Tips

Mulch with a weed-free material (e.g., clean straw) to keep the weeds down. Cut, rather than pull, weeds. Pulling weeds may damage the roots of young native plants. Pulling also disturbs the soil, encouraging weed growth.

If you use seeds, keeping your landscaped area cut to 6 inches during the first year will help control weeds. Most seeded native flowers and grasses will not grow taller than 6 inches the first year.

In many Midwestern natural areas controlled burns are necessary to clear away old vegetation and stimulate new growth. Nutrients from the ash nourish the soil. In a home landscape, however, fire is not advisable, and may be illegal next to a building or in an enclosed garden setting. Cutting and removing the debris from the area mimics the natural fire cycle. It exposes soil to the warmth of the sun and encourages growth. Cutting can be done in the spring or fall, or skip a few seasons. Each technique favors different plants and encourages diverse plant growth.

Helpful Hints

Draw your landscaping plan on paper.

Start out small, only do a little at a time. Consider converting infrequently used areas of your lawn to native plants.

Talk to your neighbors about what you are doing. Relaying the benefits of natural landscaping may inspire others to try it.

Consider putting up a sign (e.g., "Jane's Wildflower Garden"), or putting a border around your native garden to better define it. This will help neighbors feel more comfortable with a different approach to landscaping.

Talk with local officials about landscaping ordinances you should be aware of (e.g. restrictions on vegetation height).

Will Native Plants Aggravate Allergies?

Many native flowers, such as asters, goldenrods, and milkweeds, are insect-pollinated, not wind-pollinated, and do not cause allergies. It is the pollen in the air that triggers allergic reactions. The plants responsible for many pollen allergens are not native to the Midwest (e.g., Kentucky bluegrass, Bermuda grass, and timothy grass). Native ragweed is one native plant which is highly allergenic.

Will Native Plants Attract Pests?

Unsecured garbage is the main attraction for most pests such as rodents and raccoons. Native landscaping is not. Native plants will attract butterflies and dragonflies; birds such as purple martins, hummingbirds, hawks, and swallows; mammals, including bats; amphibians such as frogs and salamanders; and insects because they provide shelter and food. In return, wildlife will help control pesky bugs such as mosquitoes. A single bat can eat 3,000 to 7,000 insects per night. Canada geese, also considered a pest in some regions, prefer short turf grass over taller native grasses.

Weed Laws

Some municipalities have "weed laws" to prevent unsightly or poorly maintained property. Natural landscaping does not pose the hazards that the weed laws are intended to address (e.g. problems with vermin). Fortunately, many municipalities are responding to the current trend toward natural landscaping. Some communities have modified weed laws to allow natural landscaping, but require a "setback" or buffer strip to make the landscape look planned. A few municipalities actively promote natural landscaping because of the environmental and economic benefits. Check with your municipal officials regarding weed laws in your area.

Michigan Native Wildflowers (MI DNR)

Arrowhead (*Sagittaria latifolia*)
Autumn Wild Onion (*Allium stellatum*)
Beach Pea (*Lathyrus japonicus*)
Black-Eyed Susan (*Rudbeckia hirta*)
Blue Vervain (*Verbena hastata*)
Boneset or Thoroughwort (*Eupatorium perfoliatum*)
Cardinal-Flower (*Lobelia cardinalis*)
Closed or Bottled Gentian (*Gentiana andrewsii*)
Clustered Broom-rape (*Orobanche fasciculata*)
Cup Plant (*Silphium perfoliatum*)
Cylindrical Blazing Star (*Liatris cylindracea*)
Daisy Fleabane (*Erigeron strigosus*)
Dense Blazing Star (*Liatris spicata*)
Dotted or Horse Mint (*Monarda punctata*)
Dragon's Mouth, Wild Pink (*Arethusa bulbosa*)
Dwarf Lake Iris (*Iris lacustris*)
Eastern Prairie Fringed-Orchid (*Plantanthera leucophaea*)
Evening Primrose (*Oenothera biennis*)
False Boneset (*Kuhnia eupatorioides*)
Golden Alexanders (*Zizia aurea*)
Great Blue Lobelia (*Lobelia siphilitica*)
Hairy Puccoon (*Lithospermum caroliniense*)
Harebell (*Campanula rotundifolia*)
Hoary Vervain (*Verbena stricta*)
Houghton's Goldenrod (*Solidago houghtonii*)
Ironweed (*Vernonia missurica*)
Joe-Pye Weed or Spotted Joe-Pye Weed (*Eupatorium maculatum*)
Lake Huron Tansy (*Tanacetum huronense*)
Milkweed (*Asclepias syriaca*)
Pale Agoseris (*Agoseris glaucua*)
Pale Coneflower (*Echinacea pallida*)
Pitcher Plant (*Sarracenia purpurea*)
Pitcher's Thistle (*Cirsium pitcheri*)
Prairie Coreopsis (*Coreopsis palmata*)
Prairie Smoke (*Geum triflorum*)
Prickly Pear Cactus (*Opuntia humifusa*)
Purple Coneflower (*Echinacea purpurea*)
Purple Prairie Clover (*Dalea purpurea*)
Rosinweed (*Silphium integrifolium*)
Rough Blazing Star (*Liatris aspera*)
Rough Cinquefoil (*Potentilla norvegica*)
Round-leaved Ragwort (*Senecio obovatus*)
Sand Coreopsis or Tickseed (*Coreopsis lanceolata*)
Sea-rocket (*Cakile edentula*)
Sky Blue Aster (*Aster oolentangiensis*)
Smartweed, Knotweed (*Polygonum* species)
Smooth Aster (*Aster laevis*)
Spiderwort (*Tradescantia ohioensis*)
Stiff Goldenrod (*Solidago rigada*)
Tall Coneflower (*Rudbeckia laciniata*)
Tall Coreopsis (*Coreopsis tripteris*)
Water Milfoil (*Myriophyllum* species)
Western Sunflower (*Helianthis occidentalis*)

Wild Columbine (*Aquilegia canadensis*)
Wormwood (*Artemisia campestris*)

Michigan Native Grasses, Sedges and Rushes (MI DNR)

Beach Grass, Marram Grass (*Ammophila breviligulata*)
Big Bluestem (*Andropogon gerardii*)
Cotton Grass (*Eriophorum virginicum*)
Junegrass (*Koeleria macrantha*)
Little Bluestem (*Schizachyrium scoparium*)
Side Oats or Grama Grass (*Bouteloua curtipendula*)
Switchgrass (*Panicum virgatum*)

Michigan Native Shrubs

American Hazelnut (*Corylus americana*)
Arrowwood (*Viburnum dentatum*)
Buttonbush (*Cephalanthus occidentalis*)
Creeping Juniper (*Juniperus horizontalis*)
Dogwood (*Cornus sp.*)
Eastern Redbud (*Cercis canadensis*)
Elderberry (*Sambucus pubens*)
Ninebark (*Physocarpus opulifolius*)
Sand Cherry (*Prunus pumila*)
Willows (*Salix sp.*)