



Stream Team Academy Fact Sheet Series

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Collect this entire educational series for future reference! Contact us at 1-800-781-1989 if you'd like a copy of previous Fact Sheets and a binder for storing them.

Photo by the Leopold Center for Sustainable Agriculture/STRIPS Research Team



Native prairie buffer strip installed near the Eastern Iowa Airport.

NATIVE PLANTS

An Educational Series For Stream Teams To Learn and Collect

By Doris Sherrick, Stream Team 3757, South Grand River Watershed Alliance

HISTORY OF NATIVE LANDSCAPE

In recent years, the beauty and function of the native grasses, flowers (forbs), sedges, shrubs, and trees that dominated our Missouri landscape for 10,000 years is being rediscovered.

Numerous accounts of the beauty of the pre-European settlement of the Missouri landscape are found in the writings of early explorers such as this one in *The Expeditions of Zebulon Montgomery Pike* during the years 1805–1807:

“The country round the Osage villages one of the most beautiful the eye ever beheld. The branches of the river viz the large east fork Sac river . . . all winding round and the villages giving the advantages of wood and water at the same time the extensive prairies crowned with and luxuriant grass and flowers gently diversified by rising swells and sloping lawns present to the warm the future seats of husbandry the numerous herds domestic animals which are no doubt destined to with joy those happy plains . . .”

This beautiful and diverse landscape evolved during these thousands of years with the interaction of climate, soils, native grazers, and the native peoples’ use of fire to cover more than a third of the state—15 million acres. However, in the last 150 years or so that vast native prairie system has been reduced to fewer than 90,000 acres. This rapid transformation began when European settlers introduced change in land use with plants they transported to the New World to continue familiar agricultural practices, and converted the landscape to cropland, cities, roads, and highways. Savannas, glades, wetlands, forests, and forested river corridors have also been greatly impacted with this change in land use.

FUNCTIONS OF NATIVE PLANTS

As so often happens, the value of something is not recognized until it is gone or nearly gone. This is the case with the plants of our native landscape. We now know many of the important and irreplaceable services native plants provide. Because of this knowledge, many efforts are being made to promote their use in landscapes, including individual lawn-scaping, business landscaping, agricultural use for grazing, stream restoration, green spaces, and highway right-of-ways.

Some of the many functions of native plants that benefit water quality and water quantity include:

- ◆ Many native grasses and forbs have exceptionally long and complex root systems. This vast array of roots serves to facilitate the absorption of stormwater into the ground where it is available to replenish aquifers that are important in maintaining a

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base flow in streams. This root system also serves to filter pollutants and prevent them from washing into streams.

- Buffers, corridors, and greenways planted with a diversity of native plants — trees, shrubs, grasses, and forbs — keep sediments and pollutants out of streams by slowing stormwater runoff and trapping and filtering sediments. A diversity of native plants also contributes to water quality by providing food for native insects that are important for aquatic life.
- Strips of long-rooted native prairie plants interspersed among row crops help to reduce nutrient and chemical runoff to streams and reduce soil erosion by slowing, trapping, and infiltrating runoff. They improve soil health and provide vital habitat for pollinators and many other creatures dependent on native habitat.
- Because native plants do not require inputs of fertilizer or pesticides, these pollutants to our waters are eliminated or greatly reduced from landscapes of native plantings.
- Native plants aid in the conservation of our water resources since they are adapted to survive in periods of drought and supplemental watering is not necessary.

ACTIONS TO TAKE

First, it is important to understand what is meant by the term “native.” All plants are native to some place, so before pursuing a native planting project, learn which plants are native to your area. This information can be found at plants.usda.gov/java/.

To help acquaint you with native Missouri plants, the Grow Native! website grownative.org is an excellent source of information and features a number of photos of native plantings.

Possibilities for native plantings in urban areas include rain gardens and landscaping with native trees, shrubs, flowers, and grasses to benefit water quality while providing vital habitat for birds, insects, and other creatures.

Parks and road right-of-ways are great places for native plants. Become an advocate in your community to promote plantings of natives in these areas.

In rural areas, natives provide excellent nutrition for livestock grazing while improving soil and sequestering carbon. They are extremely beneficial for important habitat and water quality as crop buffers and strips through cropped fields. Natives are also economically important in other ways such as nut trees, timber, and providing decorative features.

Help educate the members of your community about the many benefits of native plants and promote their use in landscapes.

Support organizations whose mission is to protect our native landscapes.

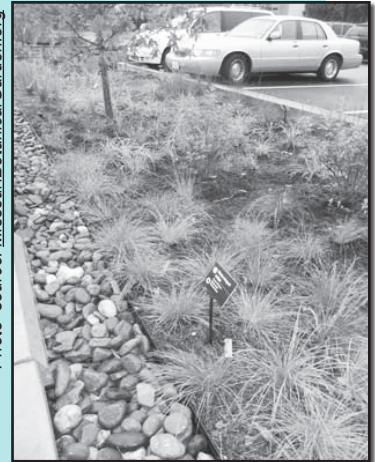


Photo by Doris Sherrick

Great Spangled Fritillary feeding on butterfly weed (*Asclepias tuberosa*).



Photo source: MissouriBotanicalGarden.org



Missouri Botanical Garden planted with oak sedge (*Carex albicans*) to slow runoff from the main entry parking lot.

Don't forget to send your questions to streamteam@mdc.mo.gov or call 1-800-781-1989.

Additional Resources:

Bentrup, Gary. *Conservation Buffers, Design Guidelines for Buffers, Corridors & Greenways*. nac.unl.edu/buffers/index.html

Tallamy, Douglas W. *Bringing Nature Home*

Tylka, Dave. *Native Landscaping for Wildlife and People*

Harvest Media: harvestpublicmedia.org/article/prairie-plants-help-restore-farmland-soil

Grow Native! grownative.org

Plant Identification: plants.usda.gov/java/ and missouriplants.com/

Missouri Botanical Garden Plant Finder: missouribotanicalgarden.org/plantfinder/plantfindersearch.aspx

A guide to Native Landscaping in Missouri: missouribotanicalgarden.org/visit/family-of-attractions/shaw-nature-reserve/gardens-gardening-at-shaw-nature-reserve/native-landscaping-for-the-home-gardener/native-landscaping-manual.aspx