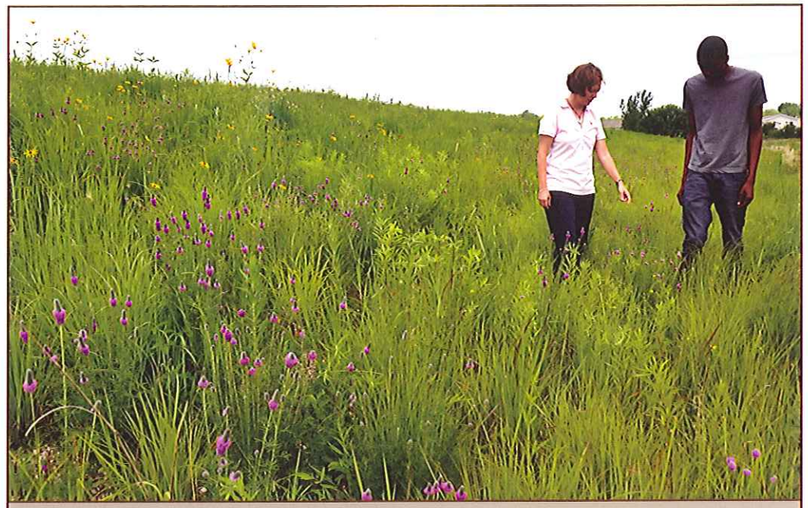
Native Prairie Reconstruction

To reduce the costs of mowing large expanses of turf such as a corporate campus, establish a diverse native planting using a mixture of native seeds. It will probably take about three years for the native planting to become fully established.



This reconstructed prairie was mowed sevearl times during the first several years of establishment for weed management and is now maintained with periodic burns. The seasonal natural beauty is enjoyed by many.

Site Preparation

Kill existing vegetation prior to seeding prairie. When killing existing vegetation, leave a border of turf. Maintaining a mowed border will provide a managed look to the native landscape and will serve as fire breaks for prescribed burn management. Broadcast or drill in the seed.

Management

Native plants spend the first two years developing roots. Annual weeds usually can dominate a new planting. Keep competing vegetation mowed to a height of 6 to 8 inches to allow sunlight to reach the small natives. By the third year the natives should flourish and start to out-compete weedy plants.

Native landscaping reduces maintenance but is not maintenance free. Certain activities need to be done on an annual basis; prescribed burning, spot treating or mowing for weed control, and cutting and stump treating woody species that will encroach if you don't burn. The result of these efforts will be an attractive native prairie planting.

Contributiing Partners

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Polk Soil & Water Conservation District

Living Roadway Trust Fund

Iowa Storm Water Education Program

Resources

- Iowa Living Roadway Trust Fund Plant Identifier: www.iowalivingroadway.com/IowaPlants.asp
- Iowa Native Lands: www.prrcd.org/inl/mission.htm
- Iowa Prairie Network: www.iowaprairienetwork.org/

Rainscaping Iowa is a statewide partnership effort promoting methods & practices to ceated functional landscapes that protect & improve water quality.

www.rainscapingiowa.org

Rainscaping Iowa Landscapes for clean water

Photos provided by:
IDALS-DSC; ISWEP; LRTF; and Polk SWCD

Brochure created by the above partners and funded in part by the Iowa Living Roadway Trust Fund.
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Native Landscaping

The Modern Landscape And Increased Runoff

For thousands of years the Iowa landscape was dominated by tall grass prairie vegetation that had deep root systems. The tall grass prairie helped form deep rich soils. Prairie soils had high organic matter content and plenty of pore space between soil particles. These soil characteristics helped the prairie absorb and infiltrate most rainfall and shed little runoff.

As the prairie was converted to agriculture and cities were established, the ability of Iowa's land to absorb and infiltrate water decreased. Tillage-based agriculture reduced the organic matter content that had developed under the prairie. Organic matter content gives the landscape the ability to act like a sponge. As organic matter declined, runoff increased. Modern soils have less pore space for water storage which means more runoff.

Urban landscapes have impervious surfaces (streets, parking lots, roof tops). Urban soils are compacted by grading activities associated with development. Impervious and compacted urban surfaces prevent infiltration and increase the amount of runoff. Urban runoff occurs with every rainfall event, causing water quality problems and stream corridor erosion and increased flood potential.

The Benefits of Native Landscaping

The use of native plants in our modern landscapes helps connect us to our prairie heritage. Once established, native plants are aesthetically pleasing and require less maintenance. They don't need watering or much fertilization, and mowing may be reduced or eliminated. The reduced maintenance can lead to significant cost savings when compared to high maintenance turfgrass systems.

Native landscaping attracts desirable species, such as songbirds, dragonflies and butterflies. Native landscaping around urban ponds helps reduce problems associated with geese, which prefer mowed turf. But most importantly, native landscaping will help restore soil quality over time, and help landscapes absorb more rainfall and reduce the amount of runoff from urban landscapes.

Rainscaping Iowa
Landscapes for clean water

Native Gardens

Native plants can be used in any garden or landscape theme. Use plugs or potted plants for faster establishment.

Plugs, Plants, Seeds

Plugs are small plants that are economical to use but require more nurturing until established. They will need to be watered regularly until the deep roots are established – at least through the first growing season.

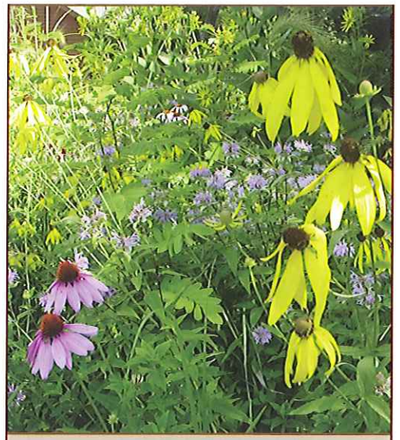
Plants are available in pots that range from 3 inches to one gallon in size. They provide showy blooms in the first year.

Seeding isn't recommended in a garden setting. Seeding takes about 3 years for the plants to establish and become showy. The appearance of a seeded garden is more random and less groomed than traditional landscaping.

Selecting Species

Select species adapted to the soils, moisture regime and sunlight characteristics. Open and sunny areas will support a large variety of plants. Shady sites tend to have fewer species to choose from.

A backyard garden featuring native plants that provide a colorful display to the neighboring surroundings.



A beautiful flower garden planted to native prairie species.

Gardens planted to water-loving natives will eliminate mowing on wet areas that tend to be rutted with mower tracks. If you have steep slopes that are hard to mow, create a garden of native plants that won't need mowing.

Usually it's best to select species that are shorter growing (3 feet or less). Some native species grow to 6 or 8 feet tall. In a small flower garden setting some of the taller species flop over and become unsightly.

Spacing

Typically plants should be spaced about 1 foot apart. Place 2 inches of mulch to help suppress weeds. Be prepared to weed until plants are fully established. If using plugs, spread the mulch first and plant through it.

Maintenance

After establishment, maintenance will be minimal. No fertilization or pesticide is needed. Remove dead vegetation each year by mowing and raking or by burning dead residue. Be careful not to ignite mulch if using fire management.

Native Turf

Another native landscaping option is the use of native turf. Native turf features a blend of low-growing native grasses that provide a lawn-like appearance. A blend of blue grama, buffalograss, and sideoats grama is recommended. Native turf provides deep, fibrous root systems that will help build and maintain soil quality. Native turf is only adapted to well drained sites.

Growth

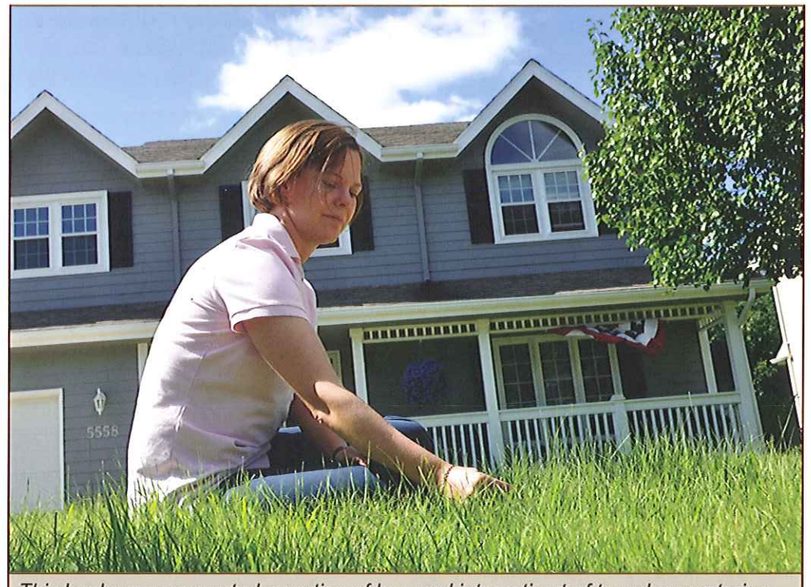
Native turf grasses are warm-season plants, which means they respond to the increased sunlight as days grow longer and hotter. Therefore, native turf will not break dormancy and green up as early in the spring as cool season turf grass lawns. However, they will be green and growing in the summer when non-native cool season grasses often go dormant in reponse to hot, dry conditions.

Management

Native turf requires a management regime that differs from non-native turf. It will not need fertilization or watering after the root systems are established.

Mowing of native turf plantings could be eliminated, and the height of the vegetation would stay in the 8 to 18-inch range. Mowing could also be done on a limited basis, keeping the appearance of the natives more like traditional turf grass. Sideoats grama will grow to about 18 inches, if a shorter growing blend is preferred, use blue grama and buffalograss.

A turf border planted to buffalo and blue gramma prairie grasses that accentuates an area planted to native prairie flowers.



This landowner converted a portion of her yard into native turf to reduce watering demands.