

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 also have less pore space for water storage. Less storage capacity means more runoff occurs.

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.



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.

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



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

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.



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

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.

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.



A well established, diverse native planting on the campus of Iowa State University. Mowed borders are maintained around native plantings to provide a managed look.



This reconstructed prairie in its second growing season at Bridgestone Bandag Corporate Headquarters in Muscatine will diversify as it matures. Bridgestone converted turf to native landscaping to save money and provide wildlife habitat.

NATIVE LANDSCAPING: IOWA'S PRAIRIE HERITAGE



1. A mowed native turf path welcomes people into this native flower garden. It features species found in the reconstructed prairie surrounding this facility.
2. This greenspace by Ames City Hall is landscaped with native plants.
3. A parking lot landscaped with native plants. Regular weeding and mulching is needed to keep this garden-like native planting looking good.
4. A reconstructed prairie buffers Twin Lakes in North Central Iowa. A mowed path welcomes people through the prairie and provides access to the lake.
5. Native landscaping graces Iowa roadsides and provides seasonal color and beauty to passing motorists. The Living Roadway Trust Fund has helped convert roadsides in Iowa to native plantings.
6. This high diversity planting features shorter growing native species on the hillside behind the Altoona fire station.

