

## Prairie Coreopsis

*Coreopsis palmata*



### PLANT NOTES

*Prairie coreopsis* prefers full sun to partial shade in mesic to dry soils. Flowers are 1 1/2" - 2" across with 8 to 12 petals with rounded tips looking a bit ragged. Flowers earlier in the summer and blooms before the warm-season prairie grasses develop rapidly in response to hot summer weather.

Photos: Shutterstock



# Chapter 7

## Planting Vegetation



### Selecting Species

Native plants are recommended for rain gardens for many reasons. They are adapted to the region's climate, soil, and moisture conditions. As native plants get established, their deep roots help break up the soil. This creates pore space that helps infiltrate and percolate water. Additionally, some of the native plant's roots decay adding more pore space and organic matter to the soils. Healthy plants with excellent root systems can make rain gardens more functional over time. Plants with deep roots also have the ability to reach further into the ground to find water during dry periods.

Many native plant species can tolerate temporary impoundment of water, which is the function of a rain garden. Native species are disease resistant and require less watering once established. They also don't require fertilization. Native species provide excellent habitat for pollinators, birds, and other wildlife.

Some rain gardens also feature species that are non-native to Iowa. While natives are recommended, some people may want to blend in their favorite horticultural cultivars. Select plants that meet your aesthetic values but consider the amount of inputs needed to keep non-native plants alive. This could include more water during periods of drought and the use of fertilizer.

Plant selection should be based on sunlight, soil moisture, plant characteristics, and other site conditions. This guide provides a variety of plant layouts to assist in species selection. Layouts are based on sun conditions and the use of native and non-native plants. Refer to Appendix B for more information.

Photo: Katy Chayka, Bugwood.org



*Prairie Blazing Star is a native prairie plant in Iowa.*

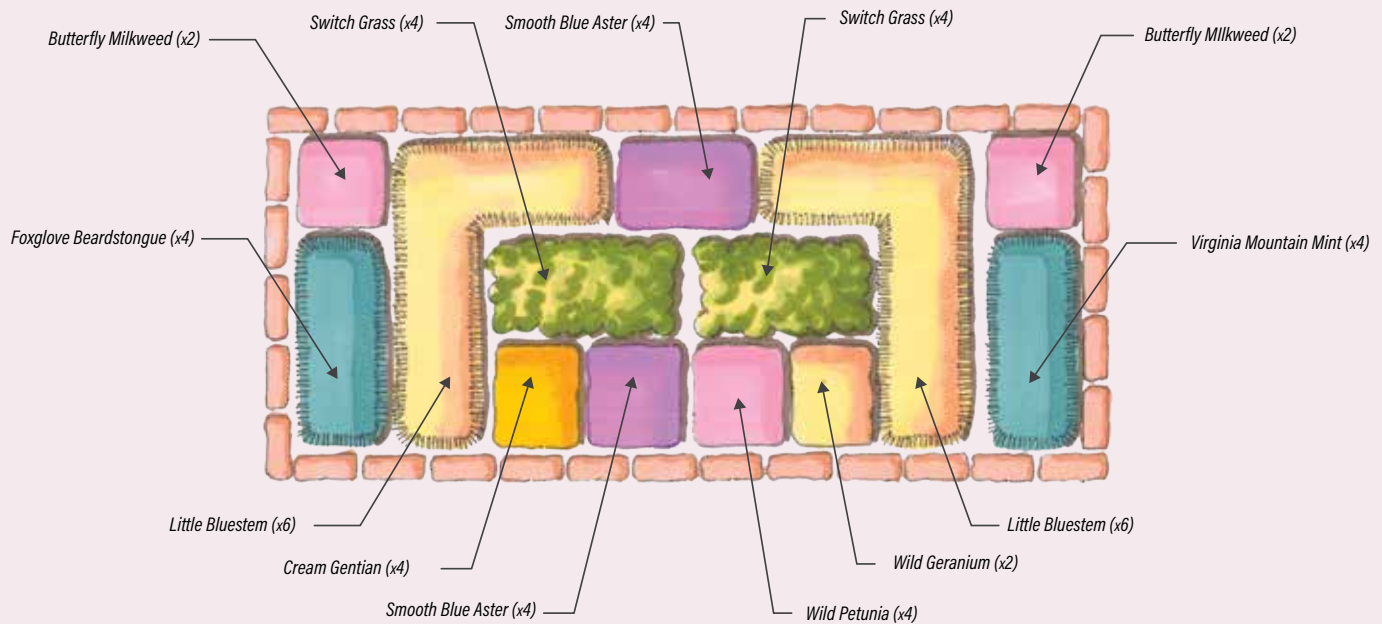
Photo: Dow Gardens



*Autumn Joy Sedum is a non-native plant suitable for rain gardens in Iowa.*

## Example Plant Layout

In this example, a 5 foot by 10 foot (50 square foot) rain garden will be constructed. Native plants for full sun conditions will be planted in the garden. The desired plant spacing is 1 plant for every 1.0 square feet. Fifty plants will be planted. Species selected provide a variety of bloom colors and mature heights. More layouts are available in Appendix B.



## Planting Process

First, gather the appropriate tools: a shovel, small hand tools, a rake, and a wheelbarrow. Try to minimize foot traffic within the rain garden when planting to minimize compaction of amended soils. Work from the side of the rain garden if possible. On larger, wider rain gardens a small bridge can be built by using two by four boards or an extension ladder and laying plywood over the top of the support boards.

Photo: Polk SWCD



*Plants placed into position before installation.*

Place a two to three-inch layer of shredded hardwood mulch across the entire surface area. Mulch suppresses weeds and helps conserve moisture needed especially for young plants during the first year. Mulch protects the rain garden from erosion.

Keep the soil in potted plants, shrubs, and trees moist before planting and keep them out of direct

sunlight until planting. When planting plugs, first place mulch. Then push aside mulch, dig a hole, bury the plant roots, and replace mulch. A dibble makes it easy to plant plugs. Push a hole into the ground with the dibble, plant then replace surrounding soil.

Depending on weather conditions, gently water plants every other day for the first few months after planting. As a rule of thumb, one inch of water per week is recommended. Watering in the early morning or evening hours will avoid water loss from evaporation. Target the base of plants rather than spraying broadly over the entire rain garden. New growth indicates that watering can be reduced to once weekly. Watering requirements will lessen as plants become fully established after the first year.

Photo: Polk SWCD



*Using a soaker hose for watering in a new rain garden.*

Soaker hoses or drip irrigation systems can be installed to provide water to the rain garden at set rates and times. A dedicated spigot is required for this option. Rain gardens can also be irrigated with a garden hose or watering can. Consider installing a rain barrel on your property to collect rainwater for watering plants. Rain barrels can also discharge water to rain gardens if they overflow.

## Plant Selection Tips and Considerations

- Wetland plants will not survive in rain gardens. Since rain gardens drain down readily after a rain event, selected species must be adapted to drained soil conditions.
- Clump species together to express more dense natural plant communities. This makes the planting pattern more obvious.
- When shrubs and trees are used in enhanced rain gardens, the amended soil mix will likely need to be adjusted. Shrubs and trees will require more topsoil than sand.
- Use a layer of low-growing plants around the circumference to frame the plant palette. An example would be the use of some of the shorter native grasses such as blue grama and June grass.
- Consider a more natural approach that mimics a dense, layered plant arrangement that occurs in natural settings. This might include layers of low-growing ground cover, clumped species of taller plants, and at the tallest layer, shrubs and/or trees. A thick layer of more shade tolerant, low growing species can be grown under shrubs, trees, and taller plants. This ground cover can be thought of as a living mulch that protects soils from erosion, promotes vital soil microbes, and reduces weed pressure. Potential species might include sedges, short grasses, and flowers that spread easily. Non-native cultivars can be used if native plants are not available.