

Leading rain down the Garden path

A new kind of garden puts rainwater to use and reduces stream pollution.

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Think of a rain garden as a leaky saucer, a sieve with sides, a berm turned upside down.

A rain garden captures water from roofs and sidewalks. The water then percolates into the ground — instead of across the driveway and down the street.

To catch the water, the garden is planted in native perennials that develop deep root systems, which help them survive dry times.

The goal is to reduce the volume of water that picks up chemicals and pollutants when it hits the streets, then ends up in sewers and, ultimately, streams.

"We're seeing more and more interest in rain-garden landscaping — letting rain soak in, not oil and grease," said Ed Kouma, an engineer with Lincoln Public Works and Utilities.

Rain gardens have gained a following on the East and West Coasts and, more recently, in the Midwest. Kansas City has become a model for its ambitious plan to create 10,000 rain gardens in five years, in both commercial and residential settings.

Rain gardens are being built in the Midlands, too, although on a smaller scale and at a slower pace until the public becomes more aware of how they work. So far, the gardens are mostly in public spaces.

Kathleen Cue, an associate in horticulture for University of Nebraska Extension in Douglas and Sarpy Counties, attended rain garden seminars in the past year. A list of plants for rain gardens soon will be available at Nebraska extension offices.

Cue and her colleagues are armed with answers to some of the most common questions, such as whether a rain garden holds water like a bog or pond and if it breeds mosquitoes.

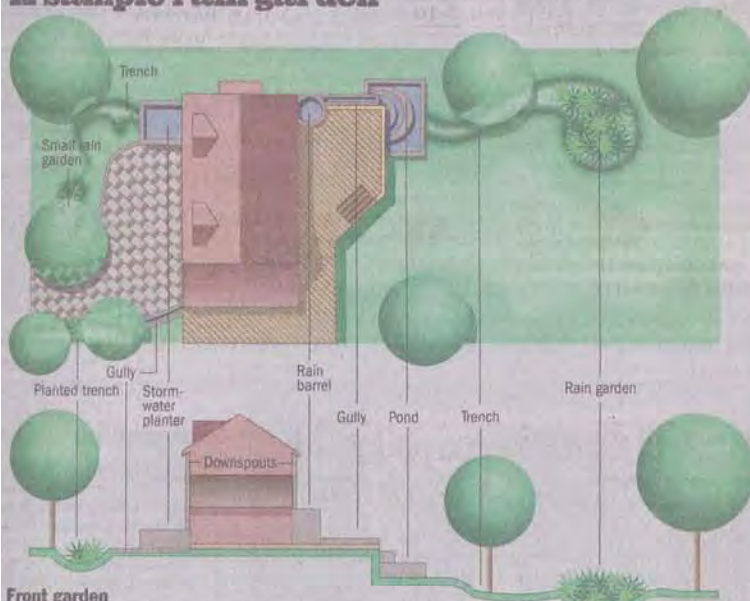
The short answer to both questions is no.

The purpose is not to retain water but to detain water, Cue said. Water filters down through the soil and should be gone in less than 48 hours.

Danelle Schmielau works for the Pottawattamie Soil and Water Conservation District. She has led seminars for Nebraska extension staff members and planted rain gardens throughout the Council Bluffs area. Three examples are behind her office.

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A sample rain garden



The basics

Location: Anywhere the lawn slopes away from the house. At least 10 feet from the foundation and in range of a downspout.

Soil: Ideally 30 percent sand, 30 percent compost and 40 percent topsoil.

Size: 100 to 300 square feet. Rule of thumb: A downspout handles water from 7 to 10 percent of a roof surface. So a 2,000-square-foot roof needs a 140-square-foot rain garden, or 10 feet by 14 feet.

Depth: 4 to 8 inches

Plants: Native plants with deep roots. Plants that need moist soils go in the bowl or basin. Those that need less-moist soil can go in the rim and slope.

Information: USDA's Natural Resources Conservation Service office in Council Bluffs, 712-328-2489.

See Page 2E for a list of plants that work in rain gardens.

Front garden

Stormwater planter captures water from downspout. Planter overflows into trench that sends water to small rain garden. Excess water from drive is directed to planted trenches.

Back garden

Rain barrel captures water from downspout, overflows into gully along edge of deck. Gully feeds pond, and excess water from pond spills into trench that leads to rain garden, where water gradually infiltrates soil.

Rain: Gardens cut pollution of water that ends up in streams

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The first is a 12-by-30-foot garden in full sun about 15 feet from the back door. The late June show came from sun-loving natives including monkey flower, vervain, coreopsis, prairie sage, cardinal flower, butterfly milkweed, St. John's wort, false dragonhead and black-eyed Susans.

Other gardens are in the works. In Pottawattamie County, residents can apply for a grant of up to \$500 per garden, with a limit of two per landowner, from a program called Train Your Rain. Another program is for landowners in the Little Pony Creek Watershed in the southern part of the county. Landowners can receive up to \$2,600 each.

Kouma said a federal grant will allow Lincoln to fund 20 rain gardens in the Holmes Lake Watershed, which is composed of several subdivisions and 5,700 properties. Homeowners will work with landscapers to build 100- to 300-square-foot gardens this fall.

"They will help diminish the pollutants going into the street and drains," he said.

The measure should help to keep Holmes Lake clean. The 110-acre flood storage reservoir was built in 1962 by the Army Corps of Engineers. It was on the edge of town then, but now it's in town, surrounded by a park and the Holmes Park Golf Course, on 70th Street in southeast Lincoln.

Sampling of native plants for rain gardens

- Blue flag iris**, 2-3 feet tall, moist soil, grasslike leaves
- Boneset**, (*Eupatorium perfoliatum*), 3-4 feet, moist
- Bottlebrush grass**, 3 feet, wetter areas, some shade, grass
- Bottlebrush sedge**, 1-2 feet, moist, grasslike leaves
- Brown fox sedge**, 1-3 feet, moderately moist, grasslike leaves
- Canada Anemone**, 1-2 feet, moderately moist, grasslike leaves
- Cardinal flower**, 2-3 feet, moderately moist to moist, flowers add another foot
- Golden Alexander** (*Zizia aurea*), 1-3 feet, moderately moist, yellow; dill-like flower
- Great blue lobelia**, 2-4 feet, moist to moderately moist
- Great St. John's wort**, 4-6 feet, moderately moist
- Iron weed**, 4-6 feet, moderately moist
- Joe-Pye weed**, 4-6 feet, moist
- Marsh blazing star** (*Liatris spicata*), 3-4 feet, moist, flower may flop
- Marsh St. John's wort**, 1-2 feet, moist
- Meadow blazing star**, 3-5 feet, moderately moist
- Monkey flower**, 1-3 feet, moist
- Prairie blazing star**, 2-5 feet, moist
- Queen of the Prairie**, 3-5 feet, moist
- Savanna Joe-Pye weed**, 4-6 feet, moist, some shade
- Swamp milkweed**, 3-5 feet, moist to moderately dry
- Turtlehead**, 3-4 feet, wet site
- Wild blue phlox**, 1/2-2 feet, needs a bit of shade