

## Thinking Spring? Think Rain Garden!

Once again we are thinking about what to do with our lawns and gardens. A common mistake many homeowners make is fertilizing their lawns in the spring. When you fertilize your lawn in the spring you are helping the weeds to grow. Save your money and consider instead installing a rain garden this spring and fertilizing your lawn in the fall when it will do the most good.

Last year some of the trustees of the Lake Mohawk Country Club believed the time was right to start a foundation to protect Lake Mohawk for future generations. That idea became the Lake Mohawk Preservation Foundation. And while we await IRS approval of our not-for-profit application, we can begin with the education and outreach components of our mission. Our first topic is the rain garden and this introductory article will explore what it is, why it is important and how to build one.

What is a rain garden? A rain garden is a patch of land that has been designed with perennial plants to manage stormwater runoff. In residential areas, most stormwater comes off rooftops but any impervious surface such as a driveway, road and parking lot also is a source of runoff. And rain gardens are better than lawns at helping the ground absorb water. In fact, a rain garden absorbs 30-percent more water than a patch of lawn of equal size. Why is that important?

Helping the ground to absorb water is important for protecting local waterways like Lake Mohawk. When it rains, and especially during storms, a rain garden fills with water allowing the water to filter slowly into the ground rather than run into storm sewers or the lake. Slowing down stormwater runoff in a rain garden also gives the soil and plants time to purify the water. What is food for a plant is pollution for an aquifer, lake or river.

Rain gardens purify water of pollutants such as salts, fertilizers, pesticides, bacteria, heavy metals and grass clippings. Whereas the soil in a rain garden filters the solids the plants can use the dissolved nutrients. Nitrogen and phosphorus, for example, are good for plants but terrible for the lake because they promote the growth of bacteria including the blue-green algae commonly called "pond scum."

Rain gardens add beauty to a property, shoreline and neighborhood. They also provide habitat for birds, butterflies and beneficial insects.

Whether we are swimming, waterskiing, boating or fishing in Lake Mohawk we are apt to forget that we are enjoying ourselves in the headwaters of the Walkill River that flows nearly 90 miles in a northeasterly direction into the Hudson River. Stopping pollutants from entering Lake Mohawk by using rain gardens will both preserve our lake for future generations and have far reaching effects.

Building a rain garden begins with a good design plan. You will need:

- A site away from the foundation of your house, away from your septic field and away from trees where standing water can cause problems.
- A slope of no more than 12-percent. The steeper the slope the better to have a smaller but deeper rain garden.
  - a. With a slope of less than 4-percent, dig 3 to 5 inches deep;
  - b. For a slope of 5-7 percent, dig 6 to 7 inches deep;
  - c. For a slope of 8-12 percent, dig 8 inches deep.

*And the steeper the slope, the larger and higher the berm or “terrace” at the low end of the rain garden. Use large rocks to reinforce the low end. More on that later.*

- Good soil drainage.

To test your drainage, dig a hole 4 inches in diameter and between 6 and 12 inches deep. Fill that hole with water and let it soak in for one hour to presoak the soil. Fill the hole again with water and measure the water depth with a ruler. After one hour, measure the water depth again. If your water depth drops by at least one-half inch then you have good drainage.
- Soil test. Soil tests are available through the Rutgers Cooperative Extension Office of Sussex County by calling [\(973\) 948-3040](tel:9739483040) Monday through Friday. This \$25 test will save you money by giving your plants the proper pH levels.
- A source of water such as a roof, downspout or paved area.
- An area about one-third the size of the surface draining into it. Although most rain gardens are between 100 and 300 square feet in size even a small rain garden in the right location can make a big difference.

*To avoid damaging any of your underground utility lines, contact New Jersey’s “One Call” system at [\(800\) 272-1000](tel:8002721000) for a free markout of underground gas, water, sewer, cable, telephone, and/or electric utility lines before any outdoor construction or digging.*

Native plants work best in a rain garden because they are hardier and have deep root systems that will help water penetrate into the ground. Native plants also compete with weeds and do not need fertilizers. Choose plants that will tolerate periods of both flooding and drought. Some plant suggestions for rain gardens in Lake Mohawk include: Swamp Milkweed, White Turtlehead, Joe-Pye Weed, Sneezweed, Cardinal flower, Great Blue Lobelia, Lady Fern, Royal Fern, Cinnamon Fern, Drooping Sedge, Tussock Sedge, Dwarf Fothergilla, Buttonbush, Arrowwood and Spicebush.

Now that you have planned for your rain garden, the digging can begin. Using the soil from digging out the garden, build a berm or “terrace” approximately 6-inches high around the low end of the garden to hold in the water. Cut a notch at the top of the berm for overflow and fill it with gravel. In a gently sloping area, incorporate the rain garden into your lawn. In a steeper area, use large rocks to reinforce its low end. Level both the garden floor and berm because level areas allow water to spread out more evenly.

Rain gardens are comparatively low maintenance and require little more than regular weeding and cleaning. Removing weeds is critical in the first few months after planting until the plants begin to mature. Mulching around the plants will also stop weeds from germinating. Check your rain garden for sediment that has collected in it. Sediment is a sign that your rain garden is working! Simply use a flat shovel to remove accumulated sediment.

The Native Plant Society of New Jersey's *Rain Garden Manual for New Jersey* is an excellent additional resource. Visit [www.npsnj.org](http://www.npsnj.org) for more information. For questions about home horticulture including rain gardens, you can also contact the Sussex County Master Gardener Helpline at [\(973\) 948-3040](tel:973-948-3040). Happy gardening!

By Birgit Bogler  
Lake Mohawk Preservation Foundation Treasurer  
& Rutgers Certified Master Gardener