



Reducing Runoff

You Can Do Your Part by Creating Stormwater-Friendly Lawns, Gardens

Want to make your garden and lawn stormwater-friendly this summer? You can start by minimizing — even foregoing — the use of pesticides and fertilizers, which could contaminate drinking supplies and hurt downstream ecosystems. When the amount of rain falling exceeds the land's ability to absorb it, the result is stormwater runoff. Without treatment, stormwater that runs from the land into our waterways can be unhealthy for people and bad for the environment. Runoff can carry chemicals, metals, bacteria, viruses, organic compounds, and other pollutants directly into creeks, lakes, rivers, and streams. Runoff can also cause severe erosion and flooding — even during a typical Pennsylvania storm. Clearly, then, what we do on the land impacts the quality of our water. That means everyone, not just government, plays a role in protecting this valuable resource by reducing runoff and the pollutants it carries. This summer, homeowners can take steps to help with the effort by making sure their gardens and lawns are "stormwater-friendly."

The stormwater-friendly garden

Home gardens can contribute considerable nutrients and other pollutants to waterways if not cared for responsibly. This mainly applies to fertilizers and pesticides. Fertilizers: Instead of using chemical fertilizers, give organic alternatives, such as compost and manure, a try.

Compost, a "do-it-yourself" fertilizer that can be created from such things as vegetable scraps and garden clippings, contains the nutrients that help your vegetables grow. When using organic fertilizers, be sure to apply them directly to the ground before planting the vegetables to prevent runoff.



Pesticides: Many insects are harmless to people and play an important role in maintaining a healthy lawn or garden ecosystem. If one is posing a problem, however, identify the exact pest you have and research the non-chemical alternatives to controlling it. Pesticides should be a last resort because they could

Infiltrate groundwater, possibly contaminate drinking supplies, and hurt downstream ecosystems.

The stormwater-friendly lawn

The following lawn-care steps will not only help to protect local streams and rivers but also result in cost savings for homeowners:

- Set your mower height to 3 inches or higher. Taller grass slows the runoff and produces a deeper and denser root system, which absorbs more water and prevents erosion. Deeper roots also reduce the need for watering during droughts and suppress weeds from growing up around them.
- Keep grass clippings and chopped leaves on your property. A mulch-mower is ideal for retaining and spreading clippings on your lawn. The clippings decompose quickly, provide important nutrients for your lawn, and settle to create an organic layer on the soil that encourages stormwater infiltration. Using this mulch may also reduce or eliminate the need for nitrogen fertilizers. If mulching with your clippings is not possible, bag and store them in a compost area and then use the organic material that's created as a fertilizer later.
- Figure out if you really need to fertilize your lawn. Foregoing fertilizer is ideal for the health of local waterways and ecosystems. However, if your lawn is thin or has bare spots, you may not have a choice since a dense, vegetated cover is the most stormwater-friendly lawn. There are no one-size-fits-all guidelines when it comes to fertilizer. Homeowners' needs vary drastically based on the soil texture and pH and nutrient levels. In fact, soil tests may reveal that your lawn is suffering from "micronutrient deficiency," a problem that standard chemical fertilizers may not alleviate. Identifying your lawn's needs first will reduce unnecessary applications, create a healthier lawn faster, and reduce your long-term costs.
- If fertilizer is needed, maximize the benefits of slow-release nitrogen and minimize the number of chemical applications. Typically called "water insoluble nitrogen," or WIN, on fertilizer bags, slow-release Nitrogen limits nutrient runoff and exportation. This type of fertilizer should be applied to your lawn in the spring, instead of the fall, to provide a steady source of nutrients throughout the growing season. Another tip: Homeowners should wait until the grass begins growing in March to fertilize and then stop fertilizing after October. Fertilizing during a lawn's dormant season increases the risk that the chemicals will run off into streams or leach into your water table because the root systems are less active.
- Do not fertilize or use pesticides within 15 to 20 feet of a stream. Keeping this distance will help keep chemicals out of waterways. Also, if you live near a stream, consider establishing a natural riparian buffer there instead.



To learn more about these buffers, visit www.stormwater.allianceforthebay.org and click on "Structural BMPs." Also, when you're done applying fertilizer, immediately sweep any granulated chemicals off hard surfaces and back onto your lawn. Your walkway, driveway, patio, or local road is often a quick route to the drainage pipes that discharge into local streams. In the long run, little actions, such as taking a stormwater-friendly approach to your garden and lawn, will have a big impact as all of them work together to protect our water's quality.

Note: Information courtesy of StormwaterPA and the Alliance for the Chesapeake Bay.