

## Visit the Following Web Sites for More Details on Fertilizer:

- **Landscapes that Help the Chesapeake Bay**  
<http://extension.umd.edu/publications/PDFs/FS701.pdf>
- **Saving Your Soil and the Chesapeake Bay**  
<http://extension.umd.edu/publications/PDFs/FS704.pdf>
- **Plants Lists**  
<http://www.mdflora.org/Fieldtripplantlists/fieldtripplantlists.html>
- **University of Maryland Home and Garden Information Center**  
<http://www.hgic.umd.edu/>
- **Maryland Cooperative Extension, Soil Test Information**  
<http://www.hgic.umd.edu/content/soiltesting.cfm>
- **Fertilizer Calculator**  
<http://www.tulsamastergardeners.org/blackbox/fertcalc.htm>
- **A Gardener's Guide to Protecting Water Quality**  
<http://www.cals.ncsu.edu/agcomm/publications/Ag-612.pdf>
- **Sustainable Lawn Care**  
[http://plantdiagnostics.umd.edu/documents/mowfeedwaterright\\_sample2.pdf](http://plantdiagnostics.umd.edu/documents/mowfeedwaterright_sample2.pdf)
- **Organic Lawn Care**  
<http://www.safelawns.org>
- **Native Plant Search Engine**  
<http://nativeplantcenter.net/>

### Prince George's County Department of Environmental Resources

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9400 Peppercorn Place, Suite 610  
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**PHONE:** (301) 883-5834

[www.princegeorgescountymd.gov](http://www.princegeorgescountymd.gov)  
DERcares@co.pg.md.us

**Water Pollution Line:** (301) 95-CLEAN



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DEPARTMENT OF ENVIRONMENTAL RESOURCES

# Fertilizer

Too Much of a Good  
Thing Can Be Bad for  
Our Environment



**RUSHERN L. BAKER, III**  
County Executive

# Going for the Green

## Are You Fertilizing More than Your Plants?

When fertilizing your lawn or garden, you probably are envisioning lush, green grass or beautiful, flowering plants. For many homeowners, a thick green lawn is a source of pride and the result of years of hard work. However, remember that fertilizers should only be used to supplement the soil's natural fertility. Adding fertilizer simply because a plant is not flourishing will do nothing to solve problems caused by insects, disease or poor drainage. Many essential elements for plant growth are provided naturally by the soil, and fertilizer should only be applied when soil tests indicate it is necessary.

Fertilizers are expensive! When fertilizers are used irresponsibly, we all lose. Serious environmental damage can occur to our streams and rivers when the wrong type of fertilizer is used, too much is applied or is applied at the wrong time of year.

### Nutrients in Motion

Nitrogen and other excess nutrients not used by the plants seep into the groundwater as water percolates through the soil. These nutrients continue to flow with stormwater to nearby streams or rivers, or become lost in the atmosphere in a process similar to evaporation.

Since all plants thrive on nutrients, even tiny algae respond to excess fertilizer and grow unchecked in our waterways. Mats of thick algae are not just a problem for recreational boaters. They block sunlight from reaching underwater grasses that are critical in supplying fish with food and protection from predators. The vast amount of oxygen consumed when algae and other aquatic plants die and decompose further impacts river ecology. Decomposing plants leave little oxygen for other organisms like fish and

crabs. Over-fertilization can cause fish kills. Some algae naturally contain toxins that are not harmful in small quantities, but these toxins can accumulate when algae growth is stimulated by nutrients. As fish and shellfish feed on the algae, toxins can accumulate in the seafood and cause people to become ill.

### Be Environmentally Friendly with Fertilizers

#### Prevent "Nutrients on the Move"

- Sweep and collect any fertilizer from driveways and walkways. Do not wash these materials into storm drains.
- Donate unwanted fertilizer to a friend, local garden club or other organization that can use it.
- Save unusable fertilizer for a household hazardous waste collection.
- Use slow-release fertilizers.
- Do not use fertilizer to melt ice on sidewalks and driveways.
- Reduce the need for commercial fertilizer by allowing grass clippings to remain on the lawn. This releases nutrients back into the turf as they decompose.
- Use a sprinkler to help the fertilizer soak into the ground and prevent runoff.

#### Use the Right Mix of Nutrients

- Avoid overusing fertilizers. Use a soil test to determine the mineral needs of your soil and apply the necessary amendments.
- Research the nutrient needs for plants before fertilizing.
- Apply no more than 1 pound of nitrogen per 1,000 square feet of lawn.

#### Watch the Weather

- Never apply fertilizer before it rains.
- Fertilize only once in the fall for cool season lawn grasses like fescue.
- Fertilize on calm days.

### Can Lush Lawns and Healthy Rivers Coexist?

Knowing how to determine the proper nutrient applications for your landscape is key to being able to improve water quality. Once you've mastered proper application practices for your landscape, share them with your neighbors. By working together, we can change behaviors and achieve clean, healthy streams and rivers.

### Soil Testing

Before investing in expensive fertilizers for your lawn, spend a little money on a soil test to determine its natural fertility. A professional laboratory can advise you on how to use supplements to enhance your landscape and be environmentally responsible. Testing is recommended every 3–5 years.

### Choose Plants Wisely

All plants, turf, shrubs, garden crops and flowers have unique requirements for nutrition, sunlight and soil conditions. Choosing the right plants for your landscape reduces the amount of care necessary to maintain plant health. Consider choosing plant species that are native to Maryland. Many native species thrive without fertilizers, pesticides or supplemental water, and are considered low maintenance.

### Use the Right Mix of Nutrients

Choose the type of fertilizer best suited to the plant being fertilized. Carefully read the label on the bag regarding "guaranteed analysis." It is indicated by three numbers on the front of the bag representing the relative percentages of nitrogen (N), phosphorus (P) and potassium (K), respectively.