

# Fall Lawn Care and Clean Water

Fall is here and once again the airwaves are filled with commercials extolling the virtues of Scottish lawn care practices and the right seed for your lawn. Fertilizer is pitched right along with the newest seed that promises to make the neighbors jealous in spring. Many homeowners want a green, healthy lawn. But did you know that green lawns can come at a high price? What is good for a dark green, monoculture lawn that all the neighbors envy is not always good for our local waterways and the Chesapeake Bay. This article highlights some things to think about as we prepare our lawns for the winter and the coming year.



In Hampton Roads, we also pay a high price when it comes to sacrificing the water quality of the Chesapeake Bay. Nutrients and chemicals deposited on lawns often end up washing into the Bay via storm sewer systems. These systems receive no pretreatment and run directly into our local water bodies. The leading threat to the health of the Chesapeake Bay is excess nitrogen and phosphorus pollution, which are frequently applied to lawns in the form of fertilizer.

People who do not live directly on the Bay often do not see a connection between their lawns/behaviors and the water quality in the Bay. You do not have to live directly on a Bay shoreline to affect the Bay. In fact, the Chesapeake Bay has a watershed (the area of land that drains into the Bay) that is 64,000 square miles!<sup>1</sup> The watershed encompasses parts of six states: Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia, as well as Washington D.C. That is a lot of yards eventually draining to the Bay possibly carrying fertilizers, pesticides, herbicides, and insecticides.

## Understanding Fertilizers

All fertilizer products are labeled with three numbers indicating the percentage of nitrogen, phosphorus and potassium (N, P, K), the three main plant nutrients. Nitrogen promotes grass shoot growth and leafy top growth, phosphorus encourages root, flower and fruit production, and potassium fosters hardiness, disease resistance and durability. A fertilizer is referred to as “complete” when it contains all three plant nutrients. A bag of 15-10-10 fertilizer, for example, contains 15 percent nitrogen, 10 percent phosphorus and 10 percent potassium. In terms of weight, a 10 pound bag of 15-10-10 fertilizer contains 1.5 lbs. of nitrogen. Some plants require more of some nutrients than others. Root crops, such as carrots, garlic and radishes require less nitrogen than leafy crops such





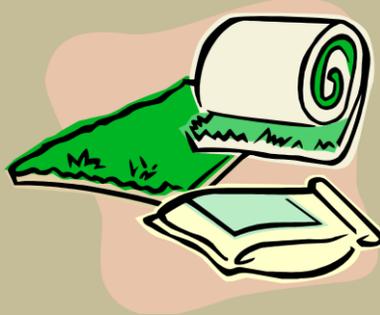
as lettuce or spinach. Fertilizer should always be applied in accordance with soil test results. Remember, too much fertilizer may burn your lawn or landscape plants. Lime may be applied to acidic soils based on soil test results. Limestone does not pollute water if it is used and handled according to the

manufacturer's instructions. Most soils in our area provide all the phosphorus that established lawns need. When fertilizing lawns or home landscapes, look for products that contain Water Insoluble Nitrogen, abbreviated "WIN." This means that the nitrogen will release slowly over time. Products labeled with the terms controlled release nitrogen, sulfur coated urea, IBDU, urea formaldehyde or resin coated urea also indicate slow release forms of nitrogen. Cottonseed meal, blood meal, bone meal, fish emulsion, compost and manures are examples of natural fertilizers. Compost and manures also add valuable organic matter to the soil.

### It's The Law

A law that prohibits the sale, use and distribution of lawn fertilizer containing phosphorus into effect on Dec. 31, 2013. The law also prohibits the sale of deicers containing urea, nitrogen or phosphorus. Additionally, golf courses must implement nutrient management plans by 2017. The law prevents an estimated 230,000 pounds of phosphorus pollution from reaching the Bay and Virginia rivers each year. This is 22 percent of Virginia's 2017 phosphorus reduction goal.

The law also requires lawn service companies to apply fertilizer according to nutrient management standards. It also requires that lawn fertilizer packages are clearly labeled with information on how to properly fertilize and reduce polluted runoff.



### Soil Testing

Before you can even think about changes to your lawn treatment or landscaping, you need to get your soil tested to find out what type of soil you have and whether you even need to add fertilizer. There are several options for soil testing and there are easy instructions for how to sample your soil and send for testing. The following link provides some really useful information on how to collect soil samples.

Virginia Cooperative Extension, Soil Sampling for the Home Gardener: <http://pubs.ext.vt.edu/452/452-129/452-129.html>

### Recommended Soil Testing

#### Frequency:

**New lawns:** test after grading, before seeding  
**Vegetable gardens:** test every three years  
**Established lawns, landscape plants, and perennial gardens:** test every three years

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## Select the Right Grass

Select grasses that do not require substantial fertilizer applications. Check out new, improved varieties of tall fescue and bluegrass. Ask for certified seed—it's worth the extra effort and cost. If you don't see a tag indicating certification you may be getting too many weeds with your seeds.



## Fertilize at the Right Time

Cool season grasses (fescue, bluegrass, ryegrass) should be fertilized in late summer or early fall to help the grass recover from summer stresses. **Nitrogen uptake in the fall is at its peak for cool season grasses.** Zoysia grass and Bermuda grass are warm season grasses that should be fertilized in early summer when they are growing most actively.

## Aerate the Soil

Aerate the soil to reduce compaction. Lawn care professionals can provide this service or you can rent an aerator from a lawn and garden supplier.

## Fertilizing Trees and Shrubs

Try to use native plants which require less fertilizer and often have a better survival rate. Healthy trees do not need fertilizer. Undersized leaves and short new twig growth could indicate a need for fertilizer. If a fertilizer is needed, choose one with a slow release form of nitrogen. Apply fertilizer to the area under the tree, beginning at the midpoint between the trunk and the drip line and extending approximately 8 feet beyond. The recommended rate is no more than 1 pound of nitrogen per 1,000 square feet. Do not use fertilizer spikes which can burn tree roots.

## Get To Know Your Grasses

### Cool Season Grasses

Ex: Tall fescue (mow to 2-3"), Fine fescue (mow to 2-3"), Ryegrass (mow to 1 ½ - 2 ½")

- Ideal for areas that get light shade
- Seed in late summer
- If needed, fertilize in fall
- Mow at higher heights during summer months

### Warm Season Grasses

Ex: Zoysiagrass (¾ to 1"), Centipedegrass (mow to 1 ½"), Bermuda grass (mow to ½ - 1")

- Ideal for areas that get full sun
- Seed in early spring
- If needed, fertilize in spring