

Why the Grass Isn't Always Greener

The Connection Between Lush Green Yards and Water Pollution

Every April, like clockwork, Mr. Jones begins meticulously maintaining his lawn. Once a week he applies fertilizer with bi-weekly watering rituals, on top of the normal heavy spring rains we enjoy in the region. Mr. Jones' lawn is always lush, even through typical periods of drought that occur in July and August. Neighbors and visitors stare in awe at the tropical like foliage and manicured lawns of the Jones property, feeling the slightest twinge of 'grass envy'. While Mr. Jones may have a lawn that offers spectacular curb appeal, he is negatively impacting the quality of the local and national water systems.

The desire to achieve a lush green lawn and beautiful flowers is understandable, as we all like to take pride in our home and landscaping. But sometimes the efforts to achieve this appearance can be too much of a good thing. The reality is that the lawn care chemicals we use to make our yards look so healthy and thriving can damage our waterways. The excess nutrients from fertilizers can contaminate drinking water and trigger massive algal blooms. The abundance of algae not only makes our waterways unpleasant to look at but also is a deterrent to recreational swimmers. Also, lawn chemicals affect the food quality and habitat for fish and other organisms, imperiling their existence.

Does this mean if you are sensitive to the environment you are doomed to have an eye-sore of a yard? Not at all! By following these recommendations, you can demonstrate care for our waterways and still maintain an attractive yard.

Responsible Fertilizing Practices

1. Start with a Soil Test. First, make sure your lawn needs fertilizer, and how much product needs applied. Soil test kits can be purchased at a minimal cost at your local garden supply store and are relatively simple to use. The soil test results will include recommendations on what nutrients you should add to your lawn. Fertilize only as needed to maintain the health and quality of lawns and landscape plants and to reduce nitrate levels. If your lawn and landscape plants are established or look healthy enough already, there is no rule that says you must fertilize them. Fertilize with a purpose, such as to increase growth, flowering or fruiting or to correct an observed nutrient deficiency.

2. Choose the Right Product. The overwhelming array of fertilizer products confuses even the experts! When you purchase your fertilizer, the package will be labeled with three numbers. The first number indicates total nitrogen (N), the second indicates phosphorus (called available phosphate) (P2O5) and the third, soluble potash (K2O). Try to look for a middle number of zero, which indicates phosphorus free fertilizer. Use fertilizers with a label that specifies at least 50% of the nitrogen is in a slow-release or water-insoluble form. Nitrates from slow release sources are more likely to be used by plants and less likely to leach out or wash away when it rains. Avoid "weed and feed mixtures." These contain herbicides to control weed growth and are often applied when they aren't needed. If healthy lawn care practices (correct mowing height and watering) are followed, weed control shouldn't be necessary.

Source material for this article provided by: Michigan Department of Environmental Quality, Portsmouth, Rhode Island web-site, www.tappwater.org, the Virginia Department of Conservation & Recreation, and the City of Orlando Public Works Department. Photo provided by the EPA.



2. Calculate How Much Fertilizer Your Lawn Needs.

The soil test results will help you figure out what nutrients your lawn lacks. For example, your soil test may recommend applying 1 pound actual nitrogen per 1,000 square feet. Say you have a 40 lb. bag of 12-4-8. The 12 means the fertilizer is 12 percent nitrogen by weight. To determine how many pounds to apply, multiply .12 times 40 lbs. This equals 4.8 lbs., the amount of nitrogen in the bag. Now divide 1, the recommended amount of N, per 1,000 sq. ft. by 4.8, the pounds of nitrogen you have. This gives you .208, or the ratio you want to spread. Now multiply your 40 lbs. of fertilizer times .208. This gives you the amount of fertilizer (8.3 lbs.) to spread over the 1,000 sq. feet.

3. How Often Should You Fertilize.

Unless your maintaining Tiger Woods's personal golf course, you can have a beautiful lawn by fertilizing only two or three times a year. Either apply twice a year, in late spring (late April or early May) and Fall (September or October). Or apply three times a year, in late Spring (Memorial Day), early fall (Labor Day), and late fall (Thanksgiving). If you use a lawn care company, skip the "step programs" they offer, and ask them about their environmental options and certifications. Fertilizer should not be applied when the grass is wet and during times of high winds and/or heavy rains.

4. Proper Fertilizer Application.

Use a spreader that can be calibrated. A calibrated spreader will ensure uniform distribution of fertilizer and help prevent over-use. Check the applicator setting often to be sure you're applying the fertilizer at the proper rate. Applying fertilizer by hand is **not recommended**. For uniform fertilizer application, apply half in one direction and the other half in a perpendicular direction. Fill granular fertilizer spreaders on a hard surface where any spills can be easily cleaned up. Never wash off fertilizer spills into the street or other hard-surface areas where they can easily enter storm sewers and ultimately surface water areas. Close the gate on the fertilizer spreader when crossing hard-surface areas. Try to use a drop spreader, which is more precise but slower than a rotary type spreader near surface water.

