

Penn State **Extension**

Grass Clippings and Stormwater

Posted: August 5, 2013

With the rain that occurred over the past month, many of us have had to mow our lawns more often. These heavy rains can also contribute to grass clippings ending up in storm water runoff. Grass clippings that are blown into the street eventually enter the street storm drain.

When lawn clippings, fertilizers, soil, leaves, or animal wastes, are picked up by storm water runoff, they are carried directly to our local streams and lakes. All of these materials including grass clippings contain phosphorus. According to the U.S. EPA, phosphorus is one of the most troublesome pollutants in storm water runoff and it is considered the primary cause of water quality problems in our lakes, ponds and streams.



Grass clippings contribute nutrients such as nitrogen and phosphorous, which cause unwanted and uncontrolled growth of algae and aquatic weeds in the waterways. Increased algae growth is observed as green algae blooms or “scums” on lakes and ponds. Too much algae is harmful to a lake system. It blocks sunlight and prevents other plants from growing. When it dies and decays, it also takes much needed oxygen away from fish. Limiting phosphorus reduces algae blooms. According to the Northeast Wisconsin Stormwater Coalition, one bushel of fresh grass clippings can contain 0.1 pounds of phosphorus which if it ends up in lakes or ponds is enough to produce 30 to 50 pounds of algae.

When mowing your yard, make certain that you do not blow grass clippings into the street. When mowing, make the first few passes with the lawnmower blowing the grass clippings into the lawn not the street. If there are grass clippings on the street or sidewalk, use a broom or leaf blower to blow them back into the lawn. Do not use a hose to wash them into the street or storm drains. Keeping your leaves and lawn clippings out of the streets and gutters will have significant benefits for your local lake or stream. You can reduce the amount of phosphorus entering a lake or stream.

You should apply only the amount of fertilizer your lawn needs. A soil test will tell you how much-if any-fertilizer your lawn needs. A soil test will inform you of the amount of phosphorus in your soil and the appropriate application rate. Excess fertilizer may harm your lawn or pollute surface water. Fertilizer applied to your streets or sidewalks will get into the nearest lake or stream. Soil test kits are available at your Penn State Extension Office.

You should mow your lawn when the grass is dry, to avoid clumping. Set the mower cutting height up to 2 to 2½ inches to hide clippings better, and make a healthier lawn. Try to remove only one-third of grass length per mowing. If the grass is very overgrown, mow twice: first at a high setting, then wait a few days and mow lower. Mow every five to seven days in the spring. (Every two weeks may be enough in the summer.) You'll still save time over bagging and dragging clippings to the curb, water and fertilize less. Sharpen mower blades twice a year.

Control soil erosion around your house. When soil is left bare, rain water will run quickly over it. The moving water picks up soil particles. These soil particles have phosphorus attached to them. Some soils are high in phosphorus and are another source of phosphorus in storm water runoff.

Keep your grass clippings on the lawn and not in the street or gutter. Remember, when you leave your grass clippings on the lawn, you add free fertilizer to your lawn. According to the U.S. EPA, leaving your grass clippings on the lawn doesn't cause thatch buildup. Grass clippings are about 90 percent water, so they decompose very quickly. Leaving your grass clippings on the lawn can reduce your lawn's annual fertilizer needs, reduce your fertilizer costs and reduce water pollution.

More information on stormwater best management practices is available at the [Stormwater PA website](http://www.stormwaterpa.org/) [<http://www.stormwaterpa.org/>].

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