

# FACT SHEET: Lawn Care for Water Quality

Maintaining a lush, weed-free lawn is a source of pride for many homeowners. To accomplish this, however, many property owners over-apply nitrogen and phosphorus fertilizers. Homeowners also apply herbicides and pesticides to their lawns to get rid of weeds and insects. During storm events, runoff collects these chemicals, discharging them into local streams. Discharge from a single property may seem insignificant, but the combination of lawn areas in an entire watershed is significant.

## ▶ Why is it a Problem?

High nitrogen and phosphorus levels in streams are bad for water quality. The excessive nutrients spur rapid algae growth, which can block sunlight from reaching below the surface. Eventually the algae die, and this process uses large quantities of oxygen levels in the water. Without oxygen, the stream becomes a dead zone unable to support aquatic life. Each summer, large dead zones occur in the Chesapeake Bay because of excessive nutrients.

## ▶ Maintain a Healthy Lawn to Protect Water Quality

A healthy lawn not only looks great, but it also helps maintain water quality. Proper lawn care and maintenance can positively affect the environment by minimizing the amount of fertilizers, herbicides, and pesticides that enter our waterways. Phosphorus is a huge pollutant, and it comes from many sources including lawn clippings and fertilizers. During a heavy rain event, stormwater runoff picks up and carries improperly discarded yard waste and chemicals into our streams, creeks, and lakes – polluting our waterways and ultimately tainting our water quality.

## ▶ What Can You Do?

There are many things you can do to minimize the amount of fertilizers, herbicides, and pesticides polluting our streams. Listed below are a few items to consider that can help reduce the risk of tainting our water quality:

- Reduce the size of your lawn. Add landscaped beds with native trees, shrubs, and perennials. This minimizes mowing time, reduces gasoline exhaust, reduces runoff, and provides food and habitat for wildlife species.
- Maintain a variety of plants in your lawn. Turf grass has very short roots, but other plants have long tuberous roots that pull nutrients and water deep into the soil.
- Reduce watering. Lawns need to rest after the spring growth spurt. During the dry season, turf grass uses stored energy to grow deep roots.
- Use a mulching mower. Shredded grass clippings return nutrients to the soil. If you do not have a mulching mower, dispose of grass clippings properly. Do not dump into nearby streams, swales, or stormwater facilities. The nutrients in the clippings will encourage algae growth. If you choose to collect grass clippings, you should compost them.
- Conduct soil tests once every three years. Determine the actual fertilizer requirements of your soil and apply half the recommended amount.
- Minimize fertilizers. Less fertilizer means less excess entering runoff.
- Aerate your lawn. Aerating allows oxygen and water to become more available to root systems, reducing runoff.

## ▶ Proper Mowing to Maintain a Healthy Lawn

- Mow only when grass is dry to get a clean cut and minimize the spread of diseases.
- Mow grass to a height of not less than 3 inches. Longer grass blades allow it to out-compete weeds, reducing the need for herbicides.
- Mow frequently, cutting no more than 1/3 of the grass height each time.
- Sharpen mower blades once a year to avoid damaging grass blades.



## DID YOU KNOW?

- ▶ Turf grass (your lawn) is the largest crop in the Chesapeake Bay Watershed, totaling more than 3.8 million acres of surface area.
- ▶ Property owners spread close to 215 million pounds of nitrogen fertilizer on their lawns, approximately 40 percent of which conveys to streams via stormwater runoff or infiltrates groundwater supplies.
- ▶ A healthy, dense lawn prevents runoff, absorbing rainfall six times more effectively than a wheat field.
- ▶ A well designed and maintained landscape increases a home's property value by 15 to 20 percent.
- ▶ The most popular lawn ornament is the pink flamingo.