



**BUILDING A
GREENER LIFESTYLE
FOR FREDERICK COUNTY**

Maintaining your Lawn while Protecting Water Quality

LAWN FACTS

Lawnmowers and air pollution.

One hour of pushing a new, gas-powered lawn mower around your yard produces about the same amount of pollutant emissions as driving your car for 50–70 miles. By some estimates, up to five percent of summer hydrocarbon emissions in suburban areas are due to lawnmower emissions.

Lawns are not Sponges.

Most lawn soils are extremely compacted, and recent research indicates that about half of all rainstorms produce at least some runoff from lawns. So, be careful what you put into your lawn—there's a good chance it may end up in the nearest stream, creek and the Chesapeake Bay!

Polluting Streams

The most comprehensive national pesticide monitoring study to date, conducted by the US Geological Survey, detected higher levels of insecticides in urban streams than in those in agricultural areas.

A Labor of Love

In Maryland alone, homeowners spend an estimated 72 million hours collectively each year on lawn care.

Turf Nation

According to industry estimates, there are more than 50 million acres of managed turf in the US. By comparison, the total watershed area of the Chesapeake Bay is just over 40 million acres.

Lawns that are as hard as a rock.

Several studies have shown that about a third of all lawns are so highly compacted during the construction process that they have the same hydrologic properties as concrete.

The DDT Legacy

Despite being banned more than 20 years ago, researchers routinely find low levels of the chemicals DDT and DDE in urban stormwater and sediment samples in our region. The legacies of these persistent pesticides are a sobering reminder that small actions can have long-term consequences.

IS GREEN GRASS

REALLY GREEN?

Most of us have childhood memories of running barefoot through the grass. In mid-Maryland, the growing season for turf grass is close to 200 days—lots of time for running through the grass!

According to a study by the Center for Watershed Protection in Ellicott City, Maryland, nearly 90% of residents in the



Is this your lawn? Is there an alternative? What's wrong with this picture?

Chesapeake Bay Watershed have a lawn, and the amount of turf that is

Estimated Distribution of Turf Grass by Sector in the Chesapeake Bay Watershed (courtesy Center for Watershed protection)

Sector	%
Home Lawns	70%
Roadside Right-of-Way	10%
Municipal Open Space	7%
Parks	4%
Schools	3%
Golf Courses	3%
Churches	2%
Cemeteries	1%
Others (e.g., airports, sod farms)	1%

fertilized in the Bay Watershed is equivalent to 800,000 football fields. In Maryland, the area devoted to managed turf or lawns consume more land area than corn, soybeans, and wheat combined!

Is your lawn a healthy, diverse green ecosystem, pleasant to the eye with low cost, ecologically sound maintenance or an economic and environmental liability from overfertilizing and overwatering?

RESOURCES

• Backyard Actions for a Cleaner Chesapeake Bay:

www.mda.state.md.us,
www.hgic.umd.edu

• Healthy Habits for Clean Water:

<http://www.epa.gov/npdes/stormwater>

• Environmental Lawn Care - Grasscycling:

www.grasscycling.askdep.com

• Envirocast: Weather and Watershed Newsletter.

The Grass Crop of the Chesapeake Bay Watershed

www.stormcenter.com/envirocast/2003-05-01/envirocast.php

• Reducing Turf

Grow It! Don't Mow It. Wild Ones Website.
www.for-wild.org

LAWN CARE TIPS

The choices we make in maintaining our lawns can make a real difference in the health of our streams, rivers, and the Chesapeake Bay. Read-on to consider some easy tips to simplify lawn care and protect our water resources:

- **Keep the fertilizer spreader in the garage this summer.**
Unless you plan to have livestock grazing on your lawn, you simply don't need to fertilize your grass every year. Many people never fertilize and still have green lawns. Have your soil tested to determine the type and amount of fertilizer or other soil amendments needed for a healthy lawn. Fertilize in the fall, not springtime, using slow release forms of nitrogen. Aerate your soil to reduce compaction and help lessen fertilizer run-off from your lawn. Fertilizers and pesticides, when improperly applied to lawns, can enter and pollute waterways.
- **Measure your yard.**
Most lawn care product application rates are based on 1,000 square feet. Do you really know how big your yard is? Take an afternoon to recline on your patio or deck and visualize 1,000 square feet (think of a square ten paces by ten paces). The most common reason why folks over-fertilize is that they over-estimate the size of their yard when buying and using lawn care products (several regional lawn experts now recommend that great lawn results can be achieved with as little as 10 pounds of nitrogen per 1,000 square feet per year—something not reflected in current product packaging).
- **Check the weather forecast before you fertilize or spray.**
If rain is expected within the next 24 hours, delay application until the next dry period.
- **Never apply herbicides or insecticides within 5 feet of pavement.**
If you must remove weeds near pavement, simply pull them by hand. Also make sure to rinse out applicators away from paved areas too. A recent California study showed that lethal insecticide levels in one small urban stream were caused by a half-dozen homes that failed to follow these simple rules. Don't leave fertilizer on sidewalks or driveways where it can be washed into the nearest stream.
- **Be a careful consumer.**
Read all product labels carefully. If the product has too many warnings on the label, consider replacing it with a safer alternative. Consider

these less toxic insecticides: insecticidal soaps, pyrethrum, rotenone and neem, horticultural oils, B.t. (*Bacillus thuringiensis*). The following natural fertilizers contain relatively low concentrations of nutrients, but add valuable organic matter to soil: cottonseed meal, blood meal, bone meal, fish emulsion, and manure.

- **Don't overwater the lawn.**
Established lawns will survive a few weeks without rain. Watering by hand or light, frequent water applications will make roots reach the soil surface for moisture, causing thatch and promoting weed growth. An abundance of water results in excessive leaf growth, depleting a lawn's natural energy reserves and weakening its disease resistance. Artificially high moisture and surface humidity can spread and foster disease pathogens. Cool weather grasses, like ryegrass or Kentucky bluegrass and some fescues go dormant and brown in the hot summer months and should not be watered. Grass is not always the best choice for steep slopes, shady areas, or walkways—consider native groundcover landscaping.
- **Mow Higher and Less Frequently.**
You can control weeds by shading them out. Set your mower height to three inches and you will have both a healthier lawn and fewer weeds. Experts caution that cutting grass too short is the second leading cause of problem lawns.
- **Don't Bother with Herbicides; you really can't win.**
An average acre of soil contains more than 200 million 'weed' seeds in the top six inches of soil, which germinate under the right moisture, light, and temperature conditions. Indeed, when you turn over grass and expose the underlying soil, about five percent of these seeds can germinate, or about 250 weeds per square foot. Don't get involved in a battle you can't win, and remember that the naked eye generally cannot distinguish between a perfect lawn and one containing at least a few weeds.

- **Honey, I shrunk the lawn!**

A great way to save time and energy is to reduce the turf area on your property by about 5 percent each year. Start with the soggy and/or steep areas that are difficult to mow. Dig out the lawn and replace it with flower and shrub beds. There are many attractive ways to do this. Place 3–4 inches of mulch and plant some container-grown plants.

- **Select a Good Natural Lawn Company.**

About 25% of us use the services of a lawn care company to take care of our yards. While it is nice to have somebody else to do the sweating, a good slacker should insist on a company that uses organic fertilizers and natural pest management techniques. Although just about every lawn care company has the word 'green' in its name, this doesn't necessarily mean that it practices environmentally-responsible lawn care. Before you sign a contract, check them out to see if they use natural or organic methods and conduct a soil test. Make sure the firm and its personnel are licensed and certified by the Maryland Department of Agriculture's Pesticide Regulation Section.



Community Commons



The Building a Greener Lifestyle series is a public outreach component of the Frederick County WRAS (Watershed Restoration Action Strategy), an alliance of diverse stakeholders interested in improving water quality and wildlife habitat in the Monocacy and Catoctin Watersheds. Community Commons coordinated the series to empower citizens to take action in their own homes and yards towards improving water quality. More information about the WRAS can be found at www.co.frederick.md.us/cleanstreams or by calling 301.694.1741. Community Commons can be reached at 301.662.3000 or at www.communitycommons.org.