



YARDSCAPING

A Homeowner's Guide to Protecting Water Quality

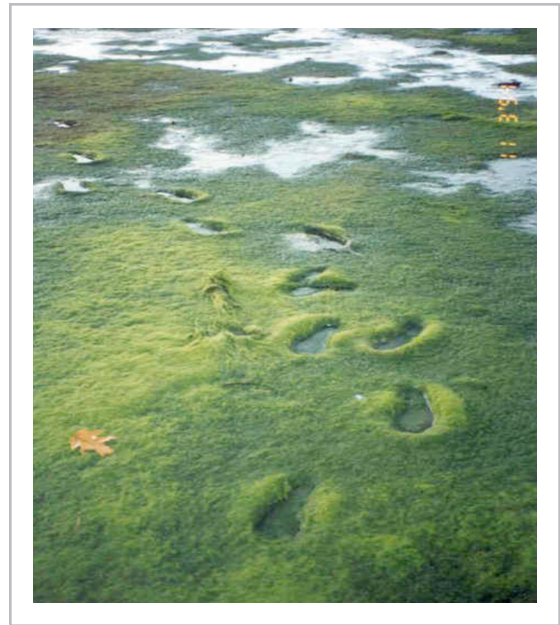
THE PROBLEM

During the past fifteen years, there has been a dramatic increase in the use of pesticides and fertilizers by homeowners in Maine. A number of factors are involved, but some of the principal causes include the rapid expansion of suburban style subdivisions where homes are surrounded by large lawns, the proliferation of big box retailers that market large quantities of lawn care products that contain both pesticides and fertilizers to homeowners, and the increased use by homeowners of lawn maintenance companies that use pesticides and fertilizers for routine lawn care.

These trends in lawn care practices have been detrimental to water quality throughout Maine. Phosphorus in stormwater runoff causes algae blooms in freshwater lakes and ponds. Nitrogen has a similar effect in coastal waters, especially in shallow bays and coves where pollutants tend to become concentrated. Most pesticides are neurotoxins that are harmful to people and wildlife. Children are particularly vulnerable because they are still growing and their body size is small.

The environmental impact of this new trend has been detected in Casco Bay, to which all of Falmouth's streams, ponds, and wetlands drain in a very short time. The Friends of Casco Bay, which has been monitoring water quality in the bay since 1993, has come to the conclusion that the pesticides and fertilizers it has detected in water samples along the coast are coming mainly from lawns in stormwater runoff.

The impact of these new lawn care practices are not confined to Casco Bay or even to Maine. Indeed, throughout the nation, many streams in urban areas now contain higher levels of pesticides and fertilizers than streams in rural areas where farming is still active.



Adverse Effect: *Algae covering this clam flat in Mussel Cove was caused principally by too much nitrogen in stormwater runoff.*



THE SOLUTION

Ironically, this pollution is almost totally unnecessary, so long as ordinary homeowners are willing to change the way they manage their properties. The solution consists of implementing four basic landscaping principles, as outlined below.

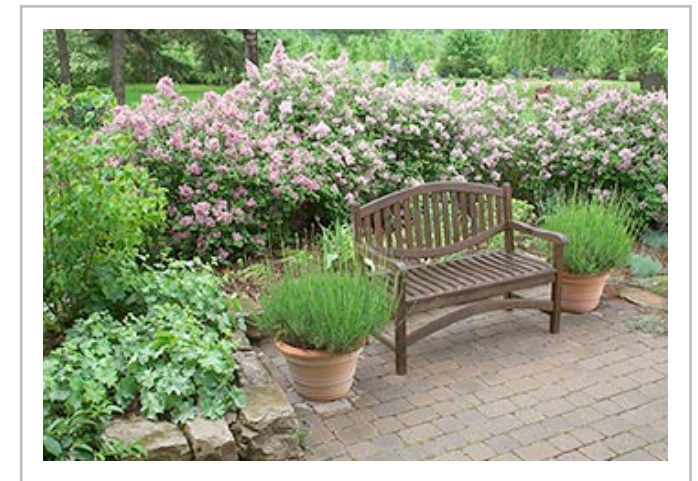
1. Reduce high maintenance lawn areas to the greatest extent possible by increasing the proportion of the property devoted to ground covers, shrub beds, and woodland.
2. Create lawns from seed mixtures that are well adapted to the Maine climate and the soils on the property, thus reducing or eliminating the use of pesticides and fertilizers.
3. Retain or plant natural shrub and forest buffers along all drainage courses, streams, ponds, lakes and wetlands, in order to filter stormwater runoff before it reaches a water body.
4. Use common sense and Integrated Pest Management techniques when problems arise due to plant pests and diseases.

GETTING HELP

The Falmouth Conservation Commission has developed recommendations to help homeowners obtain more information and assistance in implementing a yardscaping program on their property. There are many sources of help and no shortage of ideas on what to do, but you may have to do some digging to get the answers you are looking for. We hope that the recommendations contained in this fact sheet will get you started on the right track quickly.



Low Impact Yard: *No pesticides, fertilizer or watering are used to maintain this yard in Topsham. The "old field" is maintained simply by clipping unwanted trees and shrubs once a year. The lawn consists mainly of native Maine grasses that are well adapted to this dry site.*



Low Impact Garden: *Whether formal or informal in design, good yardscaping results in landscapes that have a benign effect on water quality.*



PEOPLE AND ORGANIZATIONS

Friends of Casco Bay

Phone: 799-8574

Email: mcerullo@cascobay.org

The FOCB has been a steady advocate for yardscaping since 2001, when an evaluation of their water quality samples since 1993 convinced them that a program was needed to reduce contaminants from lawn care. Mary Cerullo directs their BayScaping outreach program.

Cumberland County Soil and Water Conservation District

Phone: 856-2777

tamara-lee-pinard@me.nacdn.net

The SWCD sponsors yardscaping classes through adult education programs in area communities. Participating communities include most of the towns in the greater Portland area, including Falmouth, Cumberland, Portland, and Cape Elizabeth, among others. Tamara Lee Pinard is a Senior Project Manager for the District.

University of Maine Cooperative Extension Service Cumberland County

Phone: 1-800-287-1471

Email: cescmb@umext.maine.edu

The Extension Service provides a wide variety of technical assistance related to good yardscaping. A good source of information is Amy Witt, who directs their Master Gardeners Program. Phone: 1-800-287-1471.

University of Maine Insect and Plant Disease Diagnostic Lab

Clay Kirby

Phone: 1-800-287-1482

Email: ckirby@umext.maine.edu

Bruce Watt

Phone: 1-800-287-0279

Email: bwatt@umext.maine.edu

The Diagnostics lab is an essential resource for everyone with a plant disease or pest problem. Clay Kirby is their entomologist. Bruce Watt is their plant pathologist.

Maine Board of Pesticides Control

Phone: 287-2731

Email: gary.fish@maine.gov

In Maine, commercial applicators of pesticide must be licensed by the state, but there are no such restrictions on the use of pesticides by homeowners. This may not make much sense given the information we have on water quality, but at least the Maine Pesticide Control Board is trying to educate homeowners who choose to limit pesticide use on their own. Their certification specialist, Gary Fish, can provide important information on the proper management of lawns, shrubs and trees.

Maine Department of Environmental Protection

Phone: 287-7734

Email: christine.p.smith@maine.gov

DEP is one of Maine's top authorities on the need for shrub and woodland buffers next to water bodies. Christine Smith, who runs DEP's LakeSmart Program, can provide extra help on this subject.



ONLINE RESOURCES

Maine Yardscaping Partnership

www.yardscaping.org

The Maine Yardscaping Partnership consists of over 30 professional organizations, state agencies, cooperative extension services, environmental groups and Maine businesses that support a more ecological approach to landscape management. This is a comprehensive one-stop source of information that deals with all aspects of yardscaping, as well as sponsoring links to many other online sources and programs.

Maine Board of Pesticides Control

www.maine.gov/agriculture/pesticides/gotpests/

The Maine Board of Pesticides Control maintains this excellent website dealing with the identification and treatment of common plant diseases and pests. There are many links to other online sources for additional help. If all else fails, you can contact experts in the field directly by email or phone.

University of Maine Cooperative Extension Service

www.umext.maine.edu

The University of Maine Cooperative Extension Service home page has links to many online sources of information useful to homeowners. One of the best is their Office of Pest Management, which includes a link to the University of Maine Insect and Plant Disease Diagnostic Lab.

Cumberland County Soil and Water Conservation District

www.cumberlandswcd.org

The Cumberland County Soil and Water Conservation District has excellent online information on yardscaping that is designed specifically for homeowners. The site contains much of the information provided by the Maine Yardscaping Partnership, as well as links to other SWCD programs, such as the yardscaping classes discussed above.

A PLACE TO VISIT

The Yardscaping Partnership is building a public demonstration project showcasing yardscaping principles on 2.5 acres of land on Back Cove in Portland. The finished site is intended to show examples of low maintenance plantings suitable for the urban, suburban and rural landscapes common in Maine. More information and progress reports on the status of the project can be found at the Yardscaping Partnership web site.