

THE HEALTHY GARDEN ALTERNATIVE: EASIER THAN YOU THINK



A GUIDE TO CREATING BEAUTIFUL GARDENS THAT
PROTECT OUR BAY, OUR FAMILIES AND OUR PETS



A great way to protect the health of your family and pets, your budget, and the Chesapeake Bay watershed is by creating beautiful, healthy gardens using “safer land care” practices. When we live on land that is soil-healthy, we can reduce and even forego fertilizer and pesticide use, which can impact public health and the environment—including the Chesapeake Bay and its tributaries.



WHAT'S HEALTHY SOIL?

Healthy soil is full of all kinds of life—worms, good bacteria, and microorganisms that produce the nutrients that feed healthy grass and plants. “Dead soil” lends itself to weeds and diseases that require treatment. Healthy soil also sequesters carbon, so we can even fight climate change in our gardens.

HOW DO WE GET OUR SOIL HEALTHY?

Test your soil

This tells you what your soil needs to be healthy. Your local Cooperative Extension office can provide you with soil testing supplies or you can purchase them at home and garden stores. Soil testing will

also tell you whether your soil is too acid or too alkaline.

Feed your soil healthy food

- If your soil is too alkaline (over a 6.8 pH) apply iron sulfate.
- If your soil is too acidic (under 6.8 pH) follow the lab's recommendations.
- Your soil test may indicate the need for certain amendments that contain micronutrients, calcium, magnesium and zinc. Organic garden products feed all your garden's organisms (plants and soil life), while synthetic products miss most of the soil life organisms and are not as beneficial in promoting healthy soil. Your home and garden center sells both organic and synthetic products.
- Fertilize: Fertilization increases turf density, which reduces soil erosion and prevents weed problems. If your soil needs nitrogen, be kind to the Bay and use natural slow-release nitrogen, and either low-percentage or no-phosphorus fertilizers. Your own home-made fertilizer (from leaves, grass clippings and food scraps) or purchased compost (plant-based) is also an excellent way to provide your garden with nutrients. Avoid chicken and animal manure, which can be contaminated and contain phosphorus.



- Top dress your lawn with $\frac{1}{8}$ "- $\frac{1}{4}$ " compost in the spring or late summer. If you choose to use a synthetic fertilizer, use a slow-release fertilizer in order to reduce nitrogen runoff into waterways.



When applying fertilizer:

- * Follow label instructions
- * Apply at the spreader setting on the label
- * Store leftovers in their original bag
- * Sweep any fertilizer off hard surfaces and back onto the lawn
- * Check the weather forecast. Don't apply if heavy rain is forecast!

If you have warm-season grasses (Zoysiagrass, Bermudagrass) fertilize in the summer. For cool-season grasses (turf type Tall Fescue, Kentucky Bluegrass, perennial Ryegrass, Fine Fescues or mixtures) fertilize in fall.

GROOM YOUR GARDEN

Save money on product by taking care of your land

If needed, dethatch: (except for Tall Fescue which does not need dethatching). Thatch is dead and dying matted grass parts that accumulate on top of the soil. Thatch prevents air, water, and fertilizer from reaching the soil.

- Remove thatch with a rake or dethatching machine if more than $\frac{1}{2}$ " thick.
- Aeration can help prevent thatch buildup.
- When soil is biologically active/healthy, grass clippings decompose and do not contribute to thatch buildup.



MOWING DOES MORE THAN MAKE YOUR LAWN LOOK PRETTY

Taller grasses prevent weeds, stay green longer during droughts and improve water absorption. They also reduce runoff.

- Mow often when your grass is actively growing to avoid clumps and reduce stress on grass, but don't mow drought stressed or dormant grass as it damages the turf!
- Grass is healthiest when only $\frac{1}{3}$ of the leaf blade is removed at a time.
- For cool season grasses, set mower at 3½-4 inches. For warm season grasses, mow 2-3 inches.
- Leave grass clippings on the lawn; it's a great way to return nitrogen and organic matter to the soil.
- Mow when turf is dry.
- Keep mower blades sharp—dull blades wound the grass and make it more vulnerable to pests and diseases.

Aerate: To reduce compaction, encourage air exchange and penetration of water and nutrients into soil and roots.

- Aerate spots where you can't push a screwdriver 6" into the soil, where water pools, where grass looks thin, or where there is heavy traffic.
- Use an aerator, either foot-operated or motorized.
- Irrigate deeply (soil should be moist 6" down) so you can push the aerator into the soil as far as possible. Allow soil to dry slightly before you begin.
- Break up soil plugs with a garden rake.



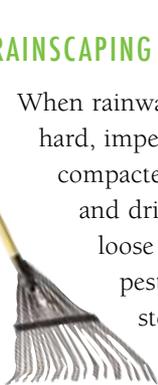


WATERING—IT'S NOT NECESSARY!

Brown grass is not necessarily dead grass—most often it's dormant grass, which often happens during the summer droughts. It will come back with the rains. If you do water, water deeply and less frequently and do so in the morning to reduce evaporation and disease.

RAINSCAPING

When rainwater runs over hard, impervious surfaces like compacted soils, sidewalks and driveways, it collects loose soil, fertilizers and pesticides that run into storm drains, which empty into our nearest



waterways. We can reduce such runoff with “rainscaping.” Rain gardens (built in a saucer shape) and rain barrels help to reduce, soak in, and filter runoff so that cleaner water flows into our waterways.

BEAUTIFUL GARDENS WITHOUT LAWNS—A HEALTHY ALTERNATIVE

Consider replacing all or some of your lawn with an attractive alternative.

- Create raingardens on your property.
- Plant native species of wetland plants and shrubs in wet areas and near downspouts.
- Plant switchgrass and other native grasses that don't require mowing and serve as buffers for nitrogen runoff which harms the Bay.
- Groundcovers are an attractive alternative to turf and often, they also flower.

WEEDS...

Remember that healthy soil, proper mowing height and a dense lawn can out-compete weeds. Thin grass allows weeds to move in and become established. If you still have some weeds after taking all the steps outlined in this brochure:



LAWN AND GARDEN PESTS

As with weeds and lawn diseases, healthy soil, proper maintenance and watering will reduce your pest problems. Home and garden centers sell both organic and synthetic products. Choosing less-toxic products is a vote for the health of your garden, your family, your pets and our waterways.

IF YOU USE A LAWN COMPANY

Ask if they have done a soil test (required by Maryland law). You may want to consider a natural or organic lawn care company or one that offers a low impact program. More companies today are concerned about the impact of fertilizers and pesticides on their customers' health as well as the state's waterways, and offer organic lawn care or practice integrated pest management (IPM). IPM starts with prevention and uses multiple tactics, with priority given to non-chemical methods followed by less-toxic products to assure the least possible hazard to people, pets, property and the environment.



- Remove weeds by hand or with garden tools.
- Spray them with a 10% vinegar solution. Remember to always follow the label directions on any product you use to avoid unwanted injury to plants.
- Spread corn gluten (a natural pre-emergent) in early spring to prevent weeds.

LAWN DISEASES

The best defenses against disease are healthy soil, proper maintenance practices and irrigation. Most lawns can tolerate a certain amount of disease without losing turf. Select the proper turf cultivar for your region to minimize disease problems.



RESOURCES

Beyond Pesticides

Environmental effects of commonly used lawn pesticides.

www.beyondpesticides.org/lawn/factsheets/30enviro.pdf

Read Your Weeds: A simple guide to a healthy lawn.

www.beyondpesticides.org/pesticidefreelawns/resources

Chesapeake Conservation Landscaping Council

www.chesapeakelandscape.org

Chesapeake Ecology Center

www.chesapeakeecologycenter.org

Maryland Pesticide Network

www.mdpestnet.org/projects/lawnCare.html

Regional IPM Centers

Growing Green Lawns

www.growinggreenlawns.org/publications/guidelines.pdf

The Sustainable Sites Initiative

www.sustainablesites.org

University of Maryland Cooperative Extension Services

Lawn, Garden and Home

www.extension.umd.edu/gardening/index.cfm

U.S. EPA Pesticide Environmental Stewardship Program

www.epa.gov/pestp/

U.S. Eco Tours Program

www.usecotours.net

West/Rhode Riverkeeper

www.westrhoderiverkeeper.org/growing_green.shtml

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MPN

MARYLAND PESTICIDE NETWORK

