Backyard Actions for a cleaner Chesapeake Bay

Maryland Native and Beneficial Plants

**Flowering Perennials (common and scientific name)**
- Bee Balm (Monarda fistulosa)
- Butterfly Weed (Asclepias tuberosa)
- Cardinal Flower (Lobelia cardinalis)
- Eastern or Wild Columbine (Aquilegia canadensis)
- Foxglove Beardtongue (Penstemon digitalis)
- Goldenrod (T Solidago spp.)
- Hollow Joe Pye Weed (Eutrochium fistulosum)
- New England Aster (Symphyotrichum novae-angliae)
- Phlox (Phlox spp.)
- Spiderwort (Tradescantia virginiana)
- Virginia Bluebells (Mertensia virginica)
- Wild Geranium (Geranium maculatum)

**Trees (common and scientific name)**
- Arrowwood Viburnum (Viburnum dentatum)
- Black Hawk (Viburnum prunifolium)
- Blueberry (Vaccinium spp.)
- Chokeberry (Aronia spp.)
- New Jersey Tea (Ceanothus americanus)
- Potted/pineapple, pink azalea (Rhododendron perolymenoides)
- Spirea (Lindera benzoin)

**Shrubs (common and scientific name)**
- American Holly (Ilex opaca)
- Eastern Redbud (Cercis canadensis)
- Fringe Tree (Chionanthus virginicus)
- Ironwood (Ostrya virginiana)
- Red Buckeye (Aesculus pavia)
- Red Maple (Acer rubrum)
- Serviceberry (Amelanchier canadensis)

1. **try pesticide alternatives**

Many farmers rely on a practice known as Integrated Pest Management (IPM) to control insects and weeds with fewer pesticides. IPM requires farmers to monitor their fields regularly to keep track of insect and weed populations. A range of management practices is used only if pests reach threatening levels or begin to cause serious crop or plant damage. Many of the options used in IPM are available through local garden shops, mail order catalogs, and the Internet. Here are a few to consider:

- **Biological Controls**
  - Encourage beneficial insects (pollinators and natural enemies of insect pests) in your yard by planting flowers and herbs and avoiding the use of insecticides.
  - Place bird or bat houses in the garden.
  - Ladybugs and lacewings help control aphids, mealybugs, and some scales.

- **Physical Controls**
  - Remove weeds and insect pests by hand.
  - Use a rotating row cover to protect vegetables from insect pests. Remove the cover in the morning for insect-pollinated crops.
  - Wash away pests with water instead of spraying pesticides.

- **Cultural Controls**
  - Choose native plants or those that are resistant to pests and diseases.
  - Select plants that flower and bear fruit at different times of the year.
  - Rotate vegetables to help cut down on disease and insect problems.
  - Remove diseased and dying plants during the summer and compost or discard garden residues in the fall.

2. **use fertilizers responsibly**

Every farmer knows that nutrients are essential for healthy crop and plant growth. Homeowners, too, have been quick to learn the benefits of fertilizers in sustaining beautiful lawns, gardens, and landscape plants. But ever-applying fertilizers is not good for plants or the environment.

Maryland’s Lawn Fertilizer Law

Maryland’s Lawn Fertilizer Law limits the amount of nutrients that can be applied to lawns and restricts phosphorus content in lawn fertilizer. The goal is to help homeowners and lawn care professionals maintain healthy lawns without applying unnecessary amounts of nitrogen and phosphorus.

- Hire only certified professionals to fertilize lawns.
- If you are a do-it-yourselfer, read and follow all label directions on the fertilizer bag.
- A single fertilizer application may not exceed 8.9 pound total nitrogen per 1,000 square feet and 8.7 pound of soluble nitrogen per 1,000 square feet except when using enhanced efficiency fertilizers.
- Visit extension.umd.edu/hgc for seasonal and yearly lawn fertilizer recommendations.
- Keep fertilizer away from streams, sidewalks, and driveways. Clean up spills.
- Do not apply phosphorus to lawns unless a soil test indicates that it is needed or the lawn is being established, patched, or renovated.
- Do not apply lawn fertilizer between November 15 and March 1, when the ground is frozen, or if heavy rain is predicted.
- Do not use fertilizers to de-ice walkways and driveways.

Like farmers, homeowners play an important role in protecting our soil and water resources—especially the Chesapeake Bay. Here are seven conservation measures—best management practices—that farmers use to protect the Bay. Homeowners can apply these same conservation measures to home, lawn and garden projects. Working together, we can make a difference for the Bay.
Farmers use many methods to protect the soil from erosion. Grasped waterways, cover crops, and well-placed buffers of trees, shrubs, or grasses help keep soil and nutrients on farm fields and out of local waterways. A well-planned backyard can help prevent soil and nutrients from entering creeks and streams in your neighborhood.

- Cover bare soil as soon as possible with new vegetation.
- Use mulch or wood chips in heavy traffic areas where vegetation cannot be reestablished.
- Use a splash block at down spout outlets to reduce soil erosion by water.

There are lots of ways to recycle. Farmers often recycle livestock manure as a safe and valuable fertilizer for their crops. Homeowners, too, can recycle leaves, grass, and non-meat kitchen scraps for use in the garden. Composting is easy, improves soil health, and makes a great fertilizer.

Getting Started

All organic matter will eventually decompose. Composting speeds up the process by providing an ideal environment for microorganisms to break down backyard wastes. Microorganisms need three key elements to thrive: oxygen, moisture, and nutrients.

- Oxygen is supplied by turning the pile periodically with a pitchfork. This is one of the most important steps for making quick compost.
- Allow rain to provide moisture. Add water during dry spells and cover the heap during prolonged rainy periods. The compost should feel damp, not saturated.

What to Compost

- Many materials can be added to a compost pile, including leaves, grass clippings, straw, shredded wood, old plants, potting soil, cobbles, grounds, tea leaves, and non-meat kitchen scraps. Avoid using seeds with seed heads, diseased plants, and meat scraps that may attract animals. Do not compost pet waste.
- Depending on the yard waste used and your diligence in turning the pile, most composted materials should be ready for garden use by the next growing season. The final product will look and feel like fertile garden soil.

Don’t let your garden sit idle this winter. Follow the lead of Maryland farmers and plant hardworking cover crops in your garden this fall to control erosion, reduce nutrient runoff, and boost your garden’s productivity.

- Cereal grains (wheat, barley, spring oats) are cold tolerant and their roots help break up compacted clay soils. They are excellent at recycling nitrogen left over from summer crops.
- Annual ryegrass is used by plants.
- Buckwheat is a fast growing spring or early summer crop that serves as an excellent cover crop to control weeds and conserve soil moisture.
- Forage radish has a large taproot that can help penetrate compacted soils.
- Legumes (crimson clover, alfalfa, hairy vetch) take nitrogen from the air and convert it into a form that is used by plants.
- Mustards, kales and rapeseed are fast growing and produce a beautiful canopy of golden flowers when mature.
- Cover crop blends combine the best features of different types of plants into a single planting.

Don’t use native and drought-tolerant plants that don’t require extensive watering.

Avoid watering at night. It encourages disease.

Let healthy, established lawns go dormant during hot, dry periods. Following water-saving measures:

- Place stones at pipe outlets to slow down rainwater runoff and promote infiltration.
- Stabilize steep hills with terraces made of wood, stone, or railroad ties.
- Plant trees, shrubs, and ground covers as a buffer around your yard and in bare areas to soak up nutrients and reduce runoff.
- Use raised beds for gardens. Build frames from wood, bricks, or blocks to help minimize soil erosion and runoff from your garden.

Provide water for pollinators.

Pesticides and herbicides are dangerous to pollinators and can help control soil erosion and compaction.

Avoid fertilizers—most native plants are hearty and do not require additional nutrients.

Forage radish are Wilting plants aren’t always thirsty—they could be getting too much water. Dig 4 to 6 inches to see if the soil feels moist and cool. If so, leave it alone.

Use mulch to help plants retain moisture and reduce evaporation to the atmosphere.

Use native and drought-tolerant plants that don’t require extensive watering.

Worldwide, pollinators—including birds, bees, butterflies, moths, beetles, and flower flies—are in decline due to many factors, but mainly loss of habitat. Maryland farmers understand the importance of pollinators to our food supply. They are planting wildflower habitats on their farms that support pollinators. You can help, too—regardless of where you live—by planting a pollinator garden that supplies food, shelter, and water for adult insects and their offspring.

Get your soil tested. Go to extension.umd.edu/hgic and click on soil testing information.

Choose plants that are naturally adapted to your garden’s conditions.

Plant your garden where it can get at least six hours of sunlight a day.

Plant a wide selection of native flowering trees, shrubs, and plants with different heights, growth habits, and colors to attract different pollinators.

Aim to have at least three different species of flowering plants in bloom from early spring to late fall.

Plant a variety of herbs including rosemary, mint, basil, parsley, sage, and lavender.

Allow crops such as broccoli, mustard, and kale to bloom.

Avoid fertilizers—most native plants are hearty and do not require additional nutrients.

Pesticides and herbicides are dangerous to pollinators and should only be used with extreme caution.

Provide water for pollinators.

Follow Maryland’s Lawn Fertilizer Law

Farmers test their soil to determine the precise amount and type of fertilizer needed for a healthy crop. This helps prevent excess nutrients from polluting waterways. Visit extension.umd.edu/hgic for soil testing information and a video on how to take a soil sample.

Understanding Fertilizers

Fertilizer packages are labeled with three numbers that indicate the percentage by weight of the three main plant nutrients: nitrogen, phosphorus, and potassium (N, P, K). Nitrogen promotes leafy top growth, phosphorus encourages root, flower, and fruit production, and potassium fosters hardness and disease resistance. Apply only the nutrients needed according to the soil test results and never exceed University of Maryland recommended rates.

When to Test

- New lawns: test after grading, but before seeding.
- Vegetable gardens: test every three years.
- Established lawns, landscape plants, and perennial gardens: test every three years.