



KY-A-Syst for the Home
Environmental Stewardship for Homeowners

Improving Yard and Garden Care

Why Should You Be Concerned?

Your yard and garden might be the last places you would look for pollution problems, but behind beautiful landscapes are activities that may threaten both your health and the environment. On average, homeowners use 10 times more chemical fertilizers and pesticides per acre than farmers use on farmland. If applied improperly, these chemicals can find their way into drinking water wells and pollute nearby lakes and streams.

Other problems occur when exposed soil washes away during a storm, harming wildlife habitat and choking waterways. Indiscriminate watering of lawns and gardens wastes large amounts of water. While it may seem that your part in pollution is minor, the effects of chemicals, soil loss, and wasted water from the hundreds or thousands of homes in your region can really add up.

How Can KY-A-Syst Help?

This publication leads you through an evaluation of your home and property to determine pollution and health risks. After you have read this publication, walk around your home and property and answer the questions in the boxes, circling the answers that best apply. Your answers will help you become familiar with your yard and garden care practices so you can make changes to help protect your family's health and the environment.

If you answer all questions with choice A, you have few problems with your yard and garden care practices. If you answer any question with B, there may be a problem. If you answer any question with C, you will want to consider making changes. Use the action checklist in this publication to help you.

If you would like further help in assessing your yard and garden care practices, contact your county office of the Cooperative Extension Service.

Fertilizer and Your Lawn

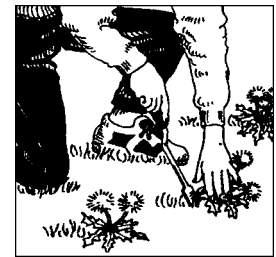
Adding fertilizer without testing your soil is like giving medicine without knowing if the patient needs it. Your soil already has some of the nutrients needed for good plant growth. Soil tests will let you know if your lawn needs fertilizer. You can collect samples any time during the year. Contact your local Cooperative Extension Service office for information on how to take a sample and submit it for analysis. With the soil analysis, your Extension agent can make a good recommendation about how much lime, phosphate, and potash your lawn needs. Test your soil every three or four years to make sure its fertility is being maintained. Although the soil test measures several important elements, it does not measure nitrogen. Nitrogen is the key plant nutrient for growing a

thick, green lawn. Applied at the right time and in the right amount, fertilizers will supply the nitrogen your soil needs. Your local Cooperative Extension Service office can provide recommendations for applying nitrogen.

About Pesticides

Many plant problems are not caused by insects or disease but instead are related to:

- temperature extremes.
- waterlogging or drought.
- damage caused by lawn mowers.
- overuse of chemicals.



*Pull weeds by hand
instead of controlling
them with chemicals.*

Learn when and where pesticides may be needed to control problems and protect the health of your family. Apply them only where pests occur. (Children are particularly vulnerable to pesticides that are stored or used improperly.) Select chemicals that are the least toxic or those that break down quickly into less harmful substances. Read the labels carefully and follow the manufacturer's directions for application rates and methods. Do not apply pesticides within 24 hours of a predicted storm. Pesticides applied within 24 hours of a rainstorm have a greater chance of being carried off your lawn with storm water runoff.

How do you fertilize your lawn or garden?

- A. Soil is tested for nutrients, and fertilizer is used as recommended.
- B. Soil is not tested, but fertilizer is applied according to label directions.
- C. Soil is not tested before applying fertilizer in large amounts.

How are you applying pesticides?

- A. Non-chemical or low-toxicity methods are used to control pests.
- B. Chemicals are used according to label instructions.
- C. Chemicals are used without regard to label instructions or conditions.

Pest prevention is often simpler and cheaper than pest removal. If you have disease-resistant grasses or plants and keep them healthy, pests will be less of a problem.

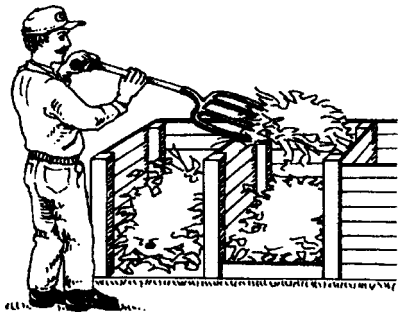
Good Landscape Practices

Gardens, lawns, and construction sites with areas of bare soil, especially on sloped land, are prone to soil erosion. You can protect soil and reduce erosion by planting ground cover vegetation or by using mulch or landscape fabric. On steep slopes, plant a vigorous ground cover but avoid turfgrass, which requires mowing. Building terraces or retaining walls on slopes can also help prevent soil loss. As with lawns, choose plants for your garden that are suited to your area and resistant to insects and diseases.

Composting and Yard Waste

Composting is a cost effective, natural way to handle leaves, grass clippings, and other yard wastes—materials that might otherwise end up in a landfill. Composting creates organic, slow-release fertilizer and soil-enhancing material. To compost, simply put yard wastes in a pile, or install homemade or store-bought bins to contain the material. In addition to yard waste, you can add vegetable trimmings and fruit peels from your kitchen. Your compost pile will remain relatively odor free if it is turned and aerated regularly. Try to locate piles at least 50 feet from any well, lake, or river. Finished compost can be mixed into garden soil or spread on lawns as a slow-release fertilizer.

One word of caution: animal manures contain high levels of nitrogen, and different types of manure have different nitrogen levels. If manure is left in piles exposed to the weather, nitrogen-rich runoff may result. If you mix manures from horses, sheep, cows, or other plant-eating animals into your compost, be sure to add plenty of high-carbon materials such as leaves, straw, or sawdust to keep concentrations of nitrogen and other nutrients low. Because of potential parasite and disease problems, do not put pet wastes from cats and dogs in compost piles.



Composting is a natural way to handle yard waste.

Watering Your Plants

Watering should be timed to meet the plants' biological needs. Watering slowly and deeply helps develop deep roots; in the long run, your plants will need less frequent watering. Plants can absorb only so much water, and most plants can tolerate at least short dry periods. Overwatering wastes water and can injure certain plants. The plants that seem to benefit most from shallow watering are the ones you don't want—weeds.

Do your landscape practices help prevent soil erosion?

- A. Ground covers, flowers, trees, and shrubs are planted to reduce soil erosion. There are no bare spots in the landscaping. Sloping land is adequately covered with a vigorous ground cover.
- B. Some bare spots exist in my landscaping, but the exposed areas are covered with mulch. On sloping landscapes, a slow-spreading ground cover is used.
- C. Bare spots exist in my landscaping, with no ground cover or mulch. There is no ground cover on sloping landscapes.

How do you handle yard waste?

- A. My yard waste is composted at home or through a community composting program. My compost pile is well maintained. It is aerated regularly and contains yard waste, vegetable food scraps, and a nitrogen source such as manure.
- B. My compost pile is poorly maintained. It is not aerated or lacks the proper mix of materials. Dog, cat, and other pet wastes are added to the pile.
- C. Yard waste is sent to the landfill. No compost is made.

How do you water your plants?

- A. Watering is done in the morning or evening, only as needed. Low water-use devices like soaker hoses are used. The sprinkler system is on manual control.
- B. Watering is excessive. The sprinkler is left unattended, and much water lands on the pavement.
- C. Watering is done during the heat of the day. The sprinkler system is used daily without regard to weather conditions. There is excessive water runoff.

How much water do your plants need?

- A. Grass, flowers, trees, and shrubs are able to survive with normal rainfall.
- B. Landscape plants require light-to-moderate watering.
- C. Heavy watering is required to keep lawn and other plants alive.

Placing several containers with 1-inch marks under your sprinkler will help you gauge how much water your lawn or garden is getting. When you irrigate, the time of day matters—early morning is best because less water is lost to evaporation, and there is less chance of mold or fungal diseases developing in your lawn. Drip irrigation systems and soaker hoses can deliver water efficiently. In some regions, an option is to allow established cool-season lawn grasses to go dormant during a hot, dry summer rather than irrigating.

Plant Choice Is Important

If you convert your landscape to plants adapted to your region and climate, you will take the biggest step you can take toward conserving water and protecting its quality. In places with landscapes that dry out quickly, there are many native plants that are drought tolerant. Consider using drought-resistant turfgrass species (such as tall fescues and buffalo grass). Also consider perennial flowers, which conserve water because their roots grow deeper than annuals and require little or no watering once established. A shallow mulch of wood or bark chips over bare soil will reduce storm water runoff and keep water from evaporating.

For More Information About . . .

- **Soil Testing**
 - County Cooperative Extension Service Office (check local listing).
- **Pesticide and Fertilizer Recommendations**
 - *Lawn Fertilization in Kentucky* (AGR-53) by A.J. Powell Jr., University of Kentucky Cooperative Extension Service.
- **Proper Lawn Maintenance**
 - *Selecting the Right Grass for Your Kentucky Lawn* (AGR-52) by A.J. Powell Jr., University of Kentucky Cooperative Extension Service.
 - *Mow Fast, Don't Poke (Bag)*, an Agronomy departmental fact sheet by A.J. Powell Jr., University of Kentucky Cooperative Extension Service.
 - *Trees, Shrubs, Ground Covers, and Vines Suitable for Kentucky Landscapes* (HO-61) by M.L. Witt, L.J. Nash, W.M. Fountain, and R.E. McNeil, University of Kentucky Cooperative Extension Service.
- **Composting**
 - *Home Composting: A Guide to Managing Yard Waste* (HO-75) by W.M. Fountain, Candace Harker, Richard Warner, and Terry K. Hutchens.



What Is the KY-A-Syst for the Home Program?

The KY-A-Syst for the Home program is a series of publications that can help you be a good environmental steward and protect the health and well-being of your family. KY-A-Syst for the Home publications provide problem-solving information and list agencies that can provide help in specific areas.

Action Checklist

Look back at the assessment questions and make sure you have answered all questions. Record all B and C responses, and list the improvements or changes you plan to make. You can use recommendations from this publication or from other sources to help you decide on action you are likely to take. Write down a date to keep you on schedule. Read back through the assessment questions from time to time to see if any responses have changed, and take any action needed to address new concerns.

Write all B and C responses below.	What can you do to reduce risk?	Set a target date for action.
<i>Sample:</i> Soil is not tested, but fertilizer is applied according to label directions.	Have a soil sample tested.	Two weeks from today: June 20.

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