Irrigation:

- Healthy lawns can have a positive impact on water quality by reducing surface run off and soil erosion and increasing water infiltration into the soil.
- After a fertilizer application, lawn watering is very important. A light watering to move the fertilizer into the thatch and root zone is best to protect run-off or leaching. Over watering can flood the area sending nutrients over the surface and into the street or on the driveway.
- Generally, a lawn requires 1 to 1½ inches of water per week from all sources, including the sprinkler and rainfall.
- Frequent watering rather than one heavy application is better because the water stays in the root zone. It also can reduce damage from some types of diseases and insects.

Mowing:

- The health and density of your lawn depends on the mowing frequency. Correct mowing practices can result in healthy lawns.
- Mow regularly so only 1/3 of the blade is removed at each mowing.
- MSU recommends a height of 2 ½ -3 ½ inches.
- Mowing too short results in a reduced root system. This restricts the plant's ability to absorb water and nutrients. Mowing higher also shades the soil surface, which reduces weed seed germination.
- Mow grass clippings into lawn. This adds nitrogen and water back to the grass and can reduce fertilizer application by one application over an entire growing season.

Continued on back

- Leaving grass clippings on the lawn does not contribute to thatch buildup.
- Do not mow clippings into adjacent water bodies or onto the street. This is like pouring fertilizer into the water.

Using Pesticides:

- Only apply pesticides when the pest is present. Use products recommended for that pest.
- Always follow label directions.
- Keep products off impervious surfaces to prevent them from getting into water bodies.
- Spot treat areas rather than blanket application when possible.
- Maintain buffer strips adjacent to water to prevent pesticide run off or leaching.
- Sweep treated grass clippings off driveways, sidewalks, and streets to prevent them from running into storm sewers when it rains.

For the complete set of tips go to:
www.turf.msu.edu/lawn.html

For all gardening questions call the Oakland MSU Extension Garden Hotline at:
(248) 858-0902
or visit our website
www.msue.msu.edu/oakland

Healthy Lawns, Healthy Lakes

Lawn Care Tips to Protect Water Quality

Information in this brochure has been compiled and edited from MSU Extension's "Turf Tips" series

MICHIGAN STATE UNIVERSITY EXTENSION
OAKLAND COUNTY

Your lawn has a major impact on the appearance of your home. A healthy, green lawn is important to nearly every homeowner whether you prefer a formal landscape or a child's playscape. Correct, regular maintenance is required no matter what type of lawn you have. However, the same actions that can improve or hurt your lawn can also have the same impact on local water resources.

The phrase, "If you have street curbs, you are a waterfront property owner" means that anything that runs off, gets poured into or leaches out may end up in the nearest lake, river, or stream. Keeping this connection in mind as you make lawn care decisions can have a positive impact on both health of your lawn and of local water resources.

The **first step** in developing a lawn care program is to determine the objectives for the lawn: formal landscape, play yard, or utility turf. Your program will be determined based on what you want.

The **second step** is have a soil test done every 3 years to identify the nutritional needs of your lawn. This simple test will help to avoid polluting surface or ground water. Contact your county Extension office or lawn care professional for assistance.

The **third step** is to develop a plan based on these major activities:

- Fertilizing
- Irrigation
- Mowing
- Pest Control

These all have interrelated roles in the health of your lawn.

Fertilizing:

There are three major components of typical fertilizer:

1. Nitrogen (N)

- Nitrogen is essential to plant growth, however, too much nitrogen can lead to eutrophication (excessive plant growth) in lakes and streams.
- The amount needed annually depends on your lawn objectives.
- Never use more than 1 pound of actual nitrogen per 1000 square feet of lawn per application.
- Use slow release nitrogen fertilizer. It is designed to release nitrogen to the plants over a long period of time.
- The portion of slow release nitrogen available in the product will be listed on the fertilizer analysis. A minimum of 25-35% slow release is recommended.
- Keep fertilizer off sidewalk, driveways, streets and any impervious surface. Sweep fertilizer granules back on the lawn where they should be. This will prevent fertilizer from running into storm sewers when it rains or the lawn is watered.

2. Phosphorus (P)

- Phosphorus is important for turf growth and critical for establishing new seedlings.
- It has the most detrimental impact on water resources because it also contributes to aquatic weed growth.
- In Michigan, most soils have adequate phosphorus and do not require additional amounts after the turf is established. Look for fertilizers that have no or low phosphorus amounts.

3. Potassium (K)

- Potassium increases the lawn's stress tolerance and its recuperative potential.
- Potassium in soil is stable and is not considered a water quality concern.

Fertilizing Tips:

- Have a soil test done every 3 years to determine fertilizer needs.
- Look for and request fertilizer with 25-35% slow release nitrogen.
- Use a no- or low-phosphorus fertilizer if soil levels are adequate (based on soil test results).
- Use no more than 1 pound of nitrogen per 1000 square feet per application.
- Use lower amounts of nitrogen in shady areas.
- Eliminate one fertilizer application by mulching your clippings back into the turf.
- Never let fertilizer land directly into any water. Use a drop spreader or rotary spreader shield to prevent granules from spraying into water.
- Keep fertilizer off driveways, sidewalks and roads. Sprinkler or rainwater can carry these materials to nearby water bodies.
- If granules land on impervious surfaces, sweep back onto lawns. Request your applicator do the same.
- Make a minimum 5-10 foot buffer strip adjacent to any water body. Do not apply any fertilizer, pesticide, or herbicide to this strip.