Sheet #6

Homeowner's Series

Environmentally-Sound Landscape Maintenance

The largest component of most home landscapes in this country is the lawn. In fact, the U.S. Environmental Protection Agency reports that there are more than 20 million acres (or 32,000 square miles) of cultivated lawn in the United States, covering more land than any other single crop. Statistics outlined in the book, *Redesigning the American Lawn*, show that our current lawn practices must better balance our need for lawns and our need for a healthy environment:

- A lawn mower pollutes as much in one hour as does driving an automobile for 350 miles.
- 30 to 60% of urban fresh water is used for watering lawns.
- $5,250,000,000 (that's *Billion!*) is spent on fossil fuel-derived fertilizers for U.S. lawns.

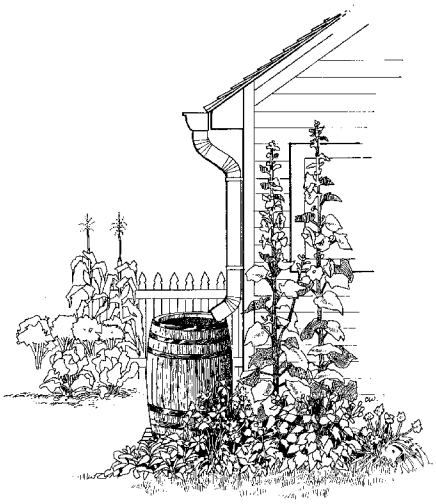
There Must Be a Better Way

There are better ways to maintain our landscapes. Below is a list of ideas that can reduce the air, noise, and water pollution generated by our traditional maintenance activities, and reduce the amount of time you will need to spend in your yard to keep it healthy.

1. Limit disturbance of existing native vegetation. If you have naturally-occurring native vegetation on your property, protect it! It takes a lot of time, effort and money to recreate what nature has already provided. If you are planning to build a new home, make sure the amount of space cleared for home construction is just the minimum necessary. Also make sure that as many existing trees as possible are protected during construction.

2. Use Well-Adapted Native Species. One benefit in using native plants is that, once they are established, they do not require a lot of maintenance. This is because they are adapted to our local climate and soil conditions. This means fewer or no fertilizer and pesticide applications, less watering, and less time dealing with plant problems!

3. Reduce storm water runoff. Beautiful landscape features can be added to your yard and improve the quality of our surface waters at the same time by capturing storm water off your roof. If your downspouts are connected to an underground drain, you can disconnect them and direct the storm water away from your house into a rain garden or dry stream bed constructed out of cobble stones. This is good for our streams because it reduces the velocity at which the rainwater enters the stream bed, protecting its banks and wildlife habitat. You can also put rain barrels at the bottom of your downspouts and use this water to irrigate your flower gardens and lawn. (Note: Water from your roof may pick up pollutants and other impurities that you may not want on your vegetable garden!)



Another way to reduce runoff is to increase the ground's infiltration capability. Water filtered through your soil will be cleaner than water that goes directly from your roof or driveway to a wetland or stream. Infiltration also recharges ground water, which in Springfield Township is our drinking water! A lawn absorbs 10% of the amount of storm water that a woodland can absorb. Reducing the amount of lawn and replacing it with garden beds rich in native plant species will increase infiltration. Prairie plants are superb conductors of storm water. Their deep roots not only absorb rain, but as the roots are replaced, they create a maze of empty "plumbing pipes" that fill with water.

4. Plant Lawn Alternatives. Much of the bad news about current landscape practices is due to lawns. Most turf grasses used today are exotic species that require a lot of pampering to look good. Long-term, low maintenance lawn alterna-

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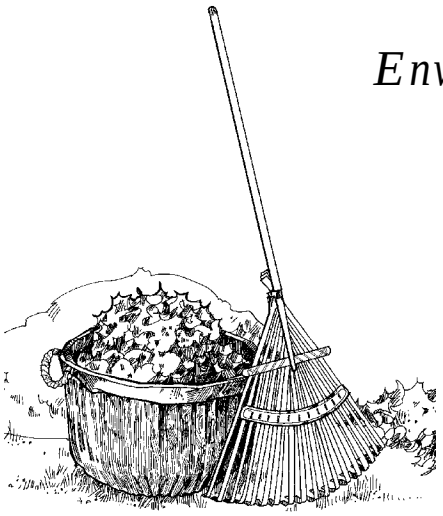
Environmentally-Sound Landscape Maintenance (Cont.)



Chop up fallen leaves in your yard with the lawn mower and leave in place or add to the compost pile.

> **"If nothing moves in your landscape but a lawnmower, it's time to think of designing a natural yard."**
>
> **-Rochelle Whiteman**

tives include Buffalo Grass (*Buchloe dactyloides*), Pennsylvania Sedge (*Carex pensylvanica*) and Wild Strawberry (*Fragraria virginiana*). Also, some native plant companies, such as Prairie Nursery (See Sheet #7), sell a "no mow" lawn mix that reduces the need for constant mowing and fertilizing. These are all low growing plants that can tolerate some foot traffic.

Another popular alternative is replacing lawn with a meadow of prairie plants. This is a great option for those with large properties and lots to mow. The tall grasses and wildflowers will not give you the active recreation space your turf grass did, but it will provide hours of entertainment as you and your family watch the plants change, and the insects, butterflies and birds visit the meadow all year round.

5. Compost and Mulch. These activities recycle the nutrients in your garden and make it self-sustaining. Composting has many benefits. It reduces the amount of organic material in our landfills (currently, 20% of our landfills are made up of grass clippings and leaves!) Composting and mulching with organic material returns important nutrients to the soil, helps conserve water, controls soil erosion and reduces the number of weeds in the lawn.

6. Better Lawn Practices. For the lawn that remains in your yard, here are some tips that will keep it greener, healthier and weed free.

- **Keep your lawn at least 3" tall.** Taller blades of grass shade out weeds, help the grass plants resist drought, cool the ground and inhibit the evaporation of water from the soil. Keeping the lawn taller also makes it more disease and insect resistant. If you have a small lawn, consider a reel-type push mower.

- **Mulch your lawn with clippings.** Don't remove the clippings from your lawn. They are made mostly of water and will decompose quickly. Mulching mowers speed this process by cutting the clippings into small pieces.

- **Reduce the use of fertilizers.** Before you fertilize, get the soil in your lawn tested. This is an easy process that can be done for a nominal charge through the MSU Extension – Oakland County. If you need to fertilize, most lawns only need it twice a year: once in late spring and once in the fall. Instead of using synthetic fertilizers, use organic, slow-release formulations. The slow-release fertilizers work over a long period of time and encourage more moderate growth, which requires less mowing.

- **Reduce or eliminate the use of pesticides.** If your lawn is healthy, you will have few problems with insects. If you discover an insect problem, first identify what it is, and the extent of the problem. If it is a minor one, concentrate on improving the health of your turf and try to tolerate a few imperfect areas. If the problem demands more attention, research Integrated Pest Management techniques through the MSU Extension service. These techniques combine prevention and ecologically-sensitive solutions to plant problems. If your only recourse is a pesticide, make sure you choose one appropriate for the problem, and use it according to directions during the insect's most vulnerable life stage.

- **Reduce watering.** It is not widely known that a lawn can go dormant during a dry spell, and then green right back up when it rains. But, if you can't tolerate even a little brown in your lawn, follow these tips to reduce watering:

1. Water in the early morning or evening to minimize water loss through evaporation.

2. Water your lawn deeply, and less frequently.

3. Be sure to keep the water on the lawn, and not on hard surfaces like the driveway.