

## **Backyard Conservation with “Grasscycling”**

Did you know that you could maintain a healthier lawn, save money, and protect the environment, all at the same time? Well, you can, when you use “Grasscycling” as one of your healthy landscaping practices. The term “Grass-cycling” simply means leaving your grass clippings on the lawn, instead of sweeping them into the street, or bagging them for dumping in the nearest landfill.

Most people know not to pour oil down a storm drain but don’t think twice about sending grass clippings down a storm drain. Just think about the total effect on our Summit County waters if grass clippings from every yard in the county ended up in a local stream or the big rivers.

When grass clippings end up in the street, they are picked up by stormwater runoff and carried down the storm drain path into the nearest stream or lake. The grass clippings introduce excess nitrogen into surface waters, causing algal blooms. When the algae decompose, they use up all of the available oxygen, and fish and aquatic animals cannot survive.

We also dump over four million tons of grass clippings and other yard waste into landfills annually. The collection and disposal cost is about \$100.00 per ton, so keeping grass clippings on the lawn is both environmentally, and economically, a sound idea.

Grass clippings are a valuable organic product, which can add vigor and durability to your lawn. Clippings left on the lawn recycle nutrients, saving you about 25% of your annual fertilizer costs. Every garbage bag full of grass clippings contains up to ¼ lb. of useable nitrogen, a valuable soil nutrient. You can avoid or eliminate the use of fertilizers and other lawn chemicals by allowing soil organisms to return these nutrients to the soil. You should also have your soil tested to see what other nutrients you may need, and in what amounts. This will keep you from over-fertilizing, save you money, and will also protect our valuable water supply.

Grasscycling is an uncomplicated, affordable, lawn care practice. Mow your grass when it is dry and keep it 3-4 inches high. This method puts more nutrients into the roots, allowing

your lawn to have a larger and deeper root system, which will protect it against weeds and droughts. Always keep mower blades sharp. By mid-summer, mower blades have become dull and this causes stress to the lawn. Sharp mower blades equal happy grass blades. A sharp blade and frequent mowing will produce finer clippings that will decompose quickly. If you have problems using your mower without the bagger, call your dealer for assistance.

You can reduce your mowing time by 25-30% by leaving clippings on the lawn. You will also eliminate raking, emptying mower bags, trips to the curb, and purchasing lawn trash bags. You don't have to worry about an unsightly appearance, because frequent mowing or using a mulching mower produces short clippings which disappear rapidly, since the mowed blades of grass are recut and forced down into the base of the lawn. Grass clippings usually disappear completely in less than a month, depending on temperature and moisture conditions.

If you only want to collect your clippings occasionally, you can recycle them as mulch in the garden or in planting beds. Mulch is a layer of material placed on the surface of the soil to conserve moisture and restrict weed growth. Mulching also adds nutrients, modifies soil temperature and helps maintain good soil structure. A layer of mulch can prevent erosion by protecting the soil surface. Clippings decompose quickly, so replace them frequently when using as mulch. Avoid mulching with clippings that have been recently treated with herbicides, because they can harm your landscape plants. Chemically treated clippings should be left on the lawn or composted where herbicides will break down. Use as a mulch only after three mowings, following any herbicide application.

Since they decompose rapidly, clippings do not contribute to thatch problems. But a thick layer of thatch can prevent clippings from reaching the soil. Thatch is a layer of organic materials made up of grass roots, leaf sheaths, and rhizomes, which lies directly on top of the soil and slowly decomposes. If you have thatch in your lawn, use a de-thatcher, a core aeration machine, a hand rake or liquid aeration, which can be obtained from organic lawn care companies. A ½ inch layer of thatch is no problem, but a thicker layer will keep clippings from reaching the soil.

If you don't want to leave your leaves on the lawn, you can compost grass clippings. First, make sure to check your local ordinances to see if composting is allowed in your community. If you just have grass clippings in your compost pile, they will mat together, depriving the composting microbes of oxygen and causing a bad odor. Make sure you add leaves and

sticks to the clippings in a ratio of three parts of leaves to one-part grass clippings. Turning the compost with a pitchfork frequently will add oxygen to the compost and eliminate odors. You can sift your compost with a screen and add ½ inch as a top dressing on your lawn, to maintain healthier turf. For more information on composting you may contact the Summit Soil and Water Conservation District at (330) 929-2871.

Finally, if your lawn is planted with cool-season grass, such as Kentucky Bluegrass, you can reduce your mowing time and expenses as well as your water use, by allowing your lawn to go dormant.

Dormancy is a natural survival mechanism for turfgrasses. While dormant, the crowns (and roots) of grass plants are live, but existing leaf blades become dead and brown and no new leaves are produced. Generally, turfgrass can remain dormant for 4 to 6 weeks, without significant damage to the plants. Actively growing Kentucky bluegrass lawns require up to 1.5 inches of water per week, while a dormant bluegrass lawn requires only 0.5 inches of water every two weeks. A light watering or rainfall of 0.5 inches every two weeks, supplies enough moisture to keep crowns, rhizomes, and roots, hydrated and alive. This low volume of water will not re-green a dormant lawn, but it will help to ensure good recovery once rainfall occurs again in the fall. If the dry weather persists, then water the lawn if it has been dormant for 4 to 6 weeks. Apply 1 to 1 ½ inches of water in a single application. This will not cause the grass to green up, but it will keep the turfgrass crowns and roots alive. If the dry conditions continue, then water every four weeks. It is also important to avoid excess foot and mechanical traffic while the lawn is dormant. Dormant lawns do not require mowing since they do not generate new leaf blades to replace the damaged ones, but excess traffic causes the existing foliage to break down and wear away. Once the foliage is gone, continued traffic begins to injure plant crowns resulting in weakening or death.

So instead of tossing those grass clippings in the landfill or stormdrain which causes them to end up in the river where they will add unwanted nutrients and use up oxygen needed by aquatic animals, put them to good use to enhance everyone's environment. In nature, everything that happens is part of a cycle, and one organism's waste is another organism's food or shelter. If we think about our home environment as part of the larger ecosystem, we can learn to use practices that are beneficial to not only our small corner but to the whole

planet that we share. For more information on these and other healthy landscaping practices, call Summit Soil and Water Conservation District, at 330-929-2871.

References: The Ohio State University Extension Horticulture, California Integrated Waste Management Board, Cornell University Cooperative Extension of Westchester County, Purdue University, United States Department of Agriculture, Natural Resources Conservation Service, University of Nebraska-Lincoln Extension Horticulture, Iowa State University Extension Horticulture.