

Mulching Tree Leaves into Lawns

The state regulation that prohibits sending yard wastes to landfills has created a problem for grounds managers and homeowners who need to dispose of tree leaves each fall. One alternative is to compost the leaves, either on the premises or at a local composting center. The latter requires the expense of collection, bagging and a means of transport to a compost center. The former requires part of the landscape be devoted to the composting. When there are many trees on the grounds, leaf clean-up and composting can be a time-consuming chore.

Another means of disposal is simply mowing the turf/tree leaves with a rotary mower often enough to pulverize the leaves so they fall into the turf.

It appears returning the leaves to the turf is not harmful to the grass *if the mulching/mowing is done at appropriate times*. When oak leaves are predominant, it will be necessary to mulch them into the turf later in the fall because they are held on the trees longer than most other trees.

For best results, leave the mower set at the same height as you have been mowing the turf. It is important to *use a rotary mower* that pulverizes the leaves well and that the *leaves are dry* when mowed. Sharpening the mower blades and a slow movement with the mower will help to grind the leaves finer. It may be necessary to make as many as three or four passes over the area to grind the leaves fine enough. The finer the leaf particles, the more easily they fall into the turf, leaving grass leaves exposed to the sunlight.

The pulverized leaves will settle into the turf within a day or two, particularly if followed by rain. Take care that the pulverized leaves do not cover the grass blades entirely. *It is best if the tree leaves are "mowed" regularly, not allowing them to lie on the turf more than three or four days.*

Fall is a very important time for the turf to photosynthesize and store carbohydrates, particularly under trees where the turf receives limited sunlight during the summer. It is suggested to add 1/2 pound nitrogen per 1,000 square feet in addition to the normal fall nitrogen fertilization to enhance decomposition of the tree leaves.

Mulching leaves into the turf is a reasonable means of disposing of the leaves. (DJ)

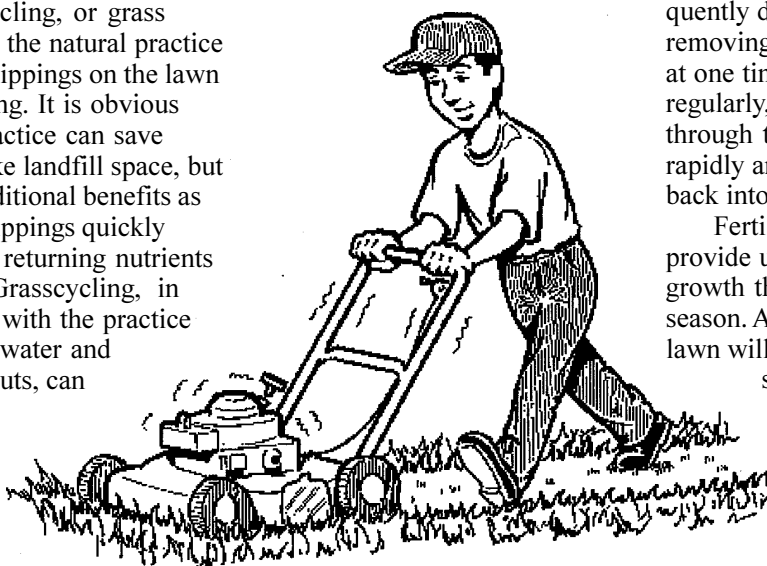
What is "Grasscycling?"

Grasscycling, or grass mulching, is the natural practice of leaving clippings on the lawn when mowing. It is obvious how this practice can save resources like landfill space, but there are additional benefits as well. The clippings quickly decompose, returning nutrients to the soil. Grasscycling, in conjunction with the practice of reducing water and fertilizer inputs, can reduce mowing time in addition to disposal costs.

Grasscycling can be practiced on any healthy lawn as long as responsible turf management guidelines are followed. Proper mowing, watering, and fertilizing practices result in more moderate turf growth yet still produce a healthy, green lawn.

The nitrogen contained in grass clippings removed from a lawn almost equals the recommended application rate for healthy turf (about five pounds of nitrogen per year per 1000 square feet). While some of this nitrogen is lost through the decomposition of the clippings, leaving the clippings on the lawn by grasscycling can have the overall impact of reducing fertilization requirements by 15–25 percent or more. Similar savings on water use are possible.

Returning clippings to the

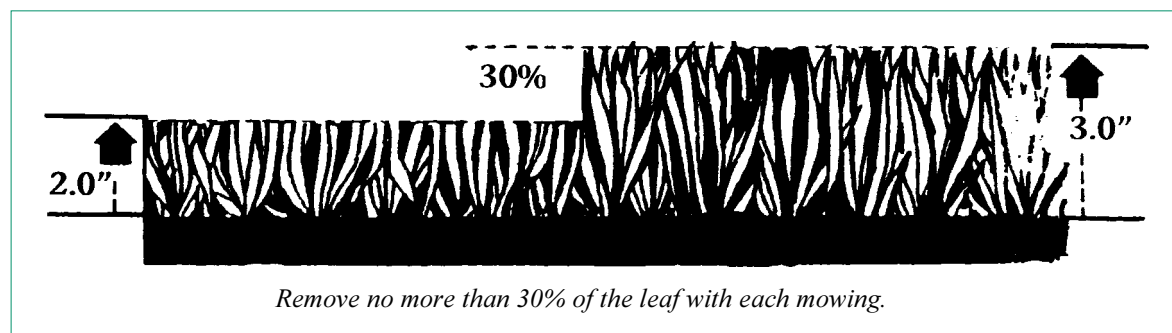


lawn usually means mowing more than once a week during the few weeks of rapid growth in spring and early summer. Grass clippings should be less than one inch, or no more than one-third of the total plant height, to ensure rapid decomposition. Mowing more frequently is not as much extra work as you might think, because lawns mowed at the proper height cut more easily and quickly. Mowing infre-

quently damages the lawn by removing too much of the plant at one time. When mowed regularly, clippings filter down through the grass, decompose rapidly and recycle nutrients back into the soil.

Fertilize your lawn to provide uniform, moderate growth throughout the growing season. A properly fertilized lawn will have a healthy, dense stand of turf that reduces weeds and recovers quickly from insect or disease injury. The number of fertilizer applications you make will depend on how you want your lawn to look, the type of grass, and soil type.

Good lawn care practices can save water and prepare turf for dry summer months. Taller mowing and proper fertilization result in a deep and efficient root system that reduces the need for additional water. The best time to water is early morning. Less water is lost by evaporation, and disease incidence is reduced. (DJ)



Remove no more than 30% of the leaf with each mowing.

Grasscycling Saves Lawn Care Costs

- **Fertilizer** — Grass clippings can supply up to one-third of a lawn's nitrogen fertilizer needs.
- **Time** — Recent trials confirmed leaving grass clippings on the lawn saves one-third of the mowing time.
- **Water use** — Clippings shade grass roots, cool the soil, return moisture, add moisture holding organic matter, and thereby reduce lawn watering needs.
- **Soil health** — Clippings decompose rapidly, feeding soil organisms that keep soil healthy and help prevent turf diseases.
- **Thatch** — Studies prove grass clippings do not cause thatch build-up. (DJ)

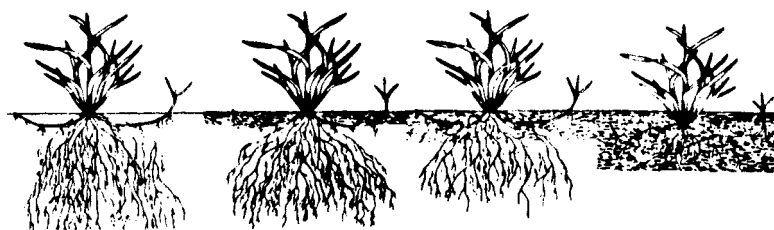
The Truth About Thatch

Thatch consists of a tightly intermingled layer of dead and decaying turfgrass tissues derived from stems, roots, and leaves. Thatch has a high lignin content and resists microbial breakdown. Located between the green vegetation and soil surface, thatch accumulates when production of turfgrass organic matter exceeds decomposition.

Infrequent mowing of tall grass can contribute to thatch accumulation. The rule for mowing is to mow at a height and frequency so no more than one-third of the grass height is removed at any single mowing. For example, a lawn that grows to a 3-inch height can be cut back to a 2-inch height, leaving the 1-inch clippings to easily filter into the grass canopy.

Grass clippings are not a primary cause of thatch, and they should not be collected in an attempt to prevent thatch buildup. Leaf tissue readily breaks down in a lawn compared to the more stable crown and shoot tissue. Mulching-type mowers chop clippings into smaller pieces that easily filter into the grass canopy and decompose faster.

A small thatch layer (less



As thatch accumulates, turfgrass roots grow in the thatch rather than in the soil, resulting in a weakened turf prone to stress injury.

than 1/2 inch) can be beneficial because it increases the turf's resiliency, improves its wear tolerance, and insulates it against soil temperature changes.

When thatch layers exceed 1/2 inch, however, the disadvantages generally outweigh the advantages. The turf's susceptibility to heat, cold, and drought increase with excess thatch accumulation, and localized dry spots, scalping, disease, and

insects may become problems. As thatch accumulates, there is a tendency for root and rhizome growth to occur primarily in the thatch layer rather than in the soil. This results in a weakened, poorly rooted turf that is prone to stress injury and requires increased management.

Thatch can be removed by hand raking or by using a power rake. Hand raking is laborious and is practical only for small areas. Power rakes can be rented, or the service can be hired from a professional lawn care company. Power rakes use rigid wire tines or steel blades to lift thatch debris and a small amount of soil to the lawn surface. The soil should have some moisture for best results. (DJ)

TURFGRASS DURING DROUGHT

continued from page i

dormant during dry periods. Without rainfall, a lawn will normally require supplemental irrigation of approximately 1.0 inch of water per week to keep the lawn green.

The amount of water applied during irrigation can be measured by placing several empty straight-sided containers, such as pet food containers or tuna

cans, in the sprinkler's pattern. Stop watering when the desired volume of water is collected in the containers. Irrigation should be performed early in the morning. At this time of day the temperatures are cooler, humidity is high and calm wind conditions usually exist. These conditions favor infiltration of the water into the soil and the availability of the supplemental water.

When the water supply for lawn irrigation is limited or when

watering restrictions are in place, the homeowner should designate priority areas of the lawn and water those areas first. The priority areas usually include the front lawn, areas around the patio or deck, and children's play areas.

If the homeowner cannot water, or elects not to water a dormant lawn, a light watering or rainfall of 0.5 inch every two weeks will help minimize damage to the lawn during the dormancy period. This watering

practice will supply enough moisture to keep crowns, rhizomes and roots hydrated and alive. This volume of water will not regreen a dormant lawn, however, it will help to insure good recovery once rainfall occurs later in the summer.

Do not fertilize the lawn, or try to control weeds, insects or diseases during drought. Stay off the lawn as much as possible. Just keeping the lawn alive is the most important thing to do during drought. (DJ)