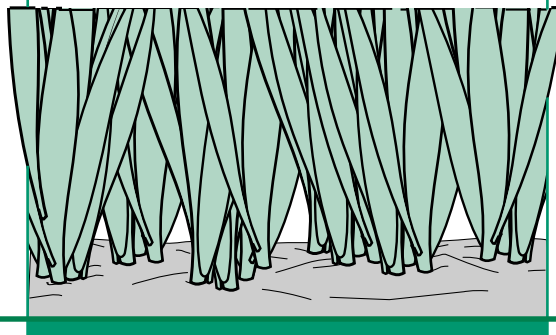


# RECYCLING GRASS CLIPPINGS

Turfgrass



## Why Recycle?

The best way to recycle grass clippings is to let them fall back to the turf. The average lawn generates about 1,500 pounds of clippings per year. This accounts for 10 percent of the curb waste.

People bag their clippings because they believe grass clippings cause thatch. Grass clippings are beneficial to the turf, and do not cause thatch. Thatch is made of decay-resistant surface roots, runners, and stems found close to the soil surface. They are not removed by mowing.

**The best way to recycle grass clippings is to let them fall back to the turf.**

## Ways to Recycle Grass Clippings

- Let clippings fall back to the turf.
- Compost clippings.
- Use clippings as a mulch.
- Take clippings to a recycling center.

## Advantages of Letting Clippings Fall Back to the Turf

- It takes a third less time to mow.
- Up to 25 percent of the fertilizer nutrients are returned in clippings.
- Reducing trash by 10 percent means less space is taken in landfills and fewer plastic bags are taken to the landfills.

Grass clippings consist of 85 to 90 percent water and nutrients. When clippings are left to dry on the turf, they shrink about 90 percent. Once dry, they will settle into the turf. Because clippings are composed of soft tissue, it does not take them long to decompose. The clippings contain

approximately 4 percent nitrogen, .5 percent phosphorus, and 2 percent potassium.

## Factors in Returning Clippings to the Turf

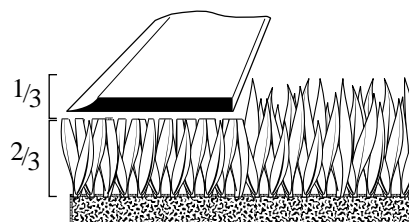
The key to letting clippings fall back to the turf is not allowing the grass to grow tall between mowings. Do not remove more than one-third of the total leaf length at any one mowing. Keep the mower blade sharp, so mowing will be more efficient and less power will be used.

**Table 1. Recommended Mowing Heights for Residential Lawns**

|                    |             |
|--------------------|-------------|
| Bermudagrass       | 1–2 inches  |
| Buffalograss       | 1½–3 inches |
| Zoysiagrass        | 1–3 inches  |
| Kentucky bluegrass | 2–3 inches  |
| Perennial ryegrass | 2–3 inches  |
| Blue/rye mix       | 2–3 inches  |
| Tall fescue        | 2–3½ inches |

**Table 2. When to Mow (to remove one-third)**

| Your Mowing height | Mow when grass gets this tall | Amount of grass removed (one-third) |
|--------------------|-------------------------------|-------------------------------------|
| 1 inch             | 1½ inches                     | ½ inch                              |
| 1½ inches          | 2¼ inches                     | ¾ inch                              |
| 2 inches           | 3 inches                      | 1 inch                              |
| 2½ inches          | 3¾ inches                     | 1¼ inches                           |
| 3 inches           | 4½ inches                     | 1½ inches                           |
| 3½ inches          | 5¼ inches                     | 1¾ inches                           |



Take 1/3 and leave 2/3.

---

Also, avoid over watering and excess fertilizing. Applying too much water or fertilizer will cause excessive growth requiring more frequent mowing. If the turf is not mowed on a regular basis, clippings will stay on top of the turf rather than filtering down to the soil surface.

### **Mowers**

Several different types of mowers can be used in recycling clippings. One option is a mulching mower; it cuts, recuts, and deposits short clippings evenly on the turf. Mulching mowers have specially designed decks and blades that suspend clippings, allowing them to be chopped into small pieces. There is no clipping discharge vent on a mulching mower. They do not work well on tall or wet grass. Mulching mowers are not an excuse to let the grass get tall between mowings.

Another choice is to use a regular side discharge (side bagging) or rear discharge mower (rear bagging). Both types of mowers can be fitted with a mulching mower "kit" over their discharge openings to make them function like a mulching mower. They don't recut the grass and distribute it as uniformly as a true mulching mower. The side discharge mower can be used without the shield if the turf is mowed on schedule. If a rear bagger is used without the shield or bag, it throws clippings onto the operator. Some rear discharge mowers can be fitted with a curved chute, which discharges the clippings to the side. Regardless of the mower used, it is important to adhere to the one-third removal rule described in Table 2.

When mowing without a catcher, it is a good practice to mow three or more rounds in a clockwise direction, throwing the grass away from buildings, walks, and drives. Then mow counterclockwise throwing the clippings away from the uncut grass.

Remember to remove clippings from hard surfaces such as sidewalks and drives. A blower works well for this job. Even a mulching mower deposits some clippings on drives and walks.

### **Composting**

One ton of clippings will result in 200 pounds of decayable fibrous matter after composting. Grass clippings require special care because of their high nitrogen content and their ability to decompose quickly. It is for this reason clippings must be turned frequently at first, sometimes twice a day to avoid odor problems. More benefits are received when grass clippings are returned to the turf than when composted.

#### **Advantages to Composting**

- Grass clippings provide moisture and nitrogen with a carbon:nitrogen ratio of 12–25:1.
- Composting is preferable to taking clippings to the landfill.

#### **Disadvantages of Composting**

- Composting requires a lot of bulk handling.
- Composting increases mowing time and amount of work.
- Composting robs the turf of the nutrient benefits of clippings.
- Dry piles of grass clippings can become a fire hazard.

### **Mulch**

Mulch is a less desirable option for recycling grass clippings. Using grass clippings as a mulch can create a fire hazard. Clippings are light weight and susceptible to being blown and/or washed away. Wet grass mulch does not breathe like other mulches. Clippings from grass treated with weed killer should not be used as a mulch to avoid injury to other plants.

### **Take Clippings to a Recycling or Transfer Stations**

Recycling centers are another option for discarding grass clippings. A recycling center may be a designated place at a landfill, a vacant city lot, or a neighbor's compost pile. Kansas landfills are regulated locally, and many have designated transfer station areas for grass clippings and other organic waste.

**Matthew J. Fagerness**  
Turfgrass Specialist

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Publications from Kansas State University are available on the World Wide Web at: <http://www.oznet.ksu.edu>

Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, credit Matthew J. Fagerness, *Recycling Grass Clippings*, Kansas State University, January 2001.

**Kansas State University Agricultural Experiment Station and Cooperative Extension Service**

MF-2110

January 2001

It is the policy of Kansas State University Agricultural Experiment Station and Cooperative Extension Service that all persons shall have equal opportunity and access to its educational programs, services, activities, and materials without regard to race, color, religion, national origin, sex, age or disability. Kansas State University is an equal opportunity organization. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, Marc A. Johnson, Director.