

Low Mowing Kills Lawns

AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

The biggest problem that I see when it comes to lawns is that people mow them too short. Lawns get clumpy, they get invaded by weeds, homeowners just aren't happy with how the lawn looks and far too much of it comes down to the lawn simply being mowed too short. Yes, there are other issues that can come along, but far too many problems begin when the mower is just set too low!

To understand why this is a problem we have to get down to the very basics of photosynthesis. Photosynthesis is a biochemical process that allows plants, through the use of chlorophyll (the green stuff in leaves) to make food to keep the plant healthy and growing. The amount of food that a plant can produce is directly related to how much chlorophyll, green stuff, the plant has.

In most plants, the majority of the chlorophyll is contained in the leaves. Up to a point, the more leaf area a grass plant has, the more food it will produce for growth, maintenance or to store up in the plant for later use. Plants, like grass plants, develop an equilibrium, or try to, of leaf area above ground to roots and crowns below ground. The more leaf area you have, the bigger the root system and the deeper into the soil the root system goes. Roots themselves can serve as storage organs so if a grass plant is severely defoliated it will actually move food from the roots to new developing leaves and some of those roots will die. But once it re-establishes the leaf area, it will grow new roots.

In a lawn, where the grass is mowed regularly, it's easy for a grass plant to maintain that equilibrium. If we follow the rule of never removing more than 1/3 the total height of the grass, the grass plant can find it's happy zone. We mow regularly, we take off short clippings and the plant doesn't have to go through this constant ebb and flow of leaf growth and root growth.

When a grass plant (lawn) is continually mowed short, the plant does not have the food production resources (leaf area.) It will literally become a smaller plant with less and less of a root system. You can mow a grass plant so short so constantly that it runs out of food and dies.

Our two most common lawn grasses, Kentucky bluegrass and tall fescue, have a very upright leaf blade. Additionally, fescue is a clump grass, it doesn't really form a sod. We just get the clumps close enough together that it looks like sod. We depend on maintaining those leaves at no shorter than 3 to 3½ inches long to provide adequate food and to shade the ground. When we start mowing tall fescue shorter than 3 inches the plants start to shrink in size and we start to get bare patches in the yard. Bluegrass needs to be kept at 2½ to 3 inches tall to keep it healthy.

Earlier I mentioned the 1/3 rule - never take off more than 1/3 the total height of the grass. This avoids those big swings in food need and food production ability. Following this guideline, if you are mowing at 3½ inch height, then you mow your lawn by the time it gets a little over 5 inches tall. But if you are mowing at 3 inches, and following this same guideline, you need to mow when the grass is a little over 4 inches tall. It's simple ratios. So mowing your grass tall actually decreases how often you need to mow your lawn! The bottom line is that you need to set your mower just about as tall as it can go and leave it there. Constantly mowing your grass too short will cause issues and unless you like crabgrass, you aren't going to be happy!