Improve Pasture Use Through Rotational Grazing

DR. GARY BATES

KNOXVILLE, TENN.

Abundant forage growth is always a wonderful thing to see in pastures. Following basic recommendations like fertilizing based on soil test, controlling weeds and planting clovers will help provide this growth. Don't follow good forage production procedures and then use poor forage harvest procedures. One of the mistakes that occurs every year in Tennessee pastures is the poor utilization of excess pasture growth.

The initial growth of a tall fescue plant during the spring is very good quality forage. The plant grows new leaves that are high in protein and energy. But as the spring progresses, the plant produces a seedhead. The main goal of that tall fescue plant changes from trying to grow leaves to filling the seeds in order to reproduce. The amount of leaf growth drops because energy is going to the seedhead instead of the parts of the plant that produce leaves. The quality of the forage also drops. The leaves are growing older, the protein and energy level is decreasing, and the fiber level is increasing. The result is lower quality forage.

The problem of low quality and reduced leaf growth in the late spring and early summer is caused by the excess forage growth. The plants are growing faster than the cattle can eat them. The difficulties caused by this excess growth can be minimized if good grazing management principles are used.

Many times articles written about controlled or rotational grazing are confusing and make the topic seem difficult. Controlled grazing is simple if you understand on basic concept: the goal of controlled grazing is to force the cattle to eat all of the forage available in the pasture without overgrazing the plants.

If cattle are given a large area to graze, the majority of their grazing will occur close to water and shade. The areas of the pasture far away will not be grazed, resulting in waste in these portions of the pasture. If the cattle have enough forage close to the water and shade, forage on the edges of the pasture will get mature, drop in quality, and forage will go to waste.

A good grazing management program means that pasture size is reduced, and cattle are concentrated in a smaller area, where they are not allowed the opportunity to be selective as to where they graze. They are forced to graze over the entire pasture and remove all of the forage. After they remove the forage in this smaller pasture (or paddock), they are moved into a new paddock and the process starts over again.

Utilizing this type of management helps in two basic ways. First, as mentioned earlier, it decreases wasted forage. In the spring when excess forage is produced, some of the acreage is cut for hay because not as many acres are needed for grazing. As spring progresses and high temperatures develop, forage growth will decrease. The acres that were used for hay can then be put into the grazing rotation. The early forage growth that in the past was wasted on the edge of the pastures will be put up as hay.

The second way this management practice helps is by allowing a rest period for the plants. Once the paddock is grazed down, cattle are moved to a new paddock. The plants in the previous paddock are allowed a chance to regrow. This rotation is especially important during the summer, when high temperatures and drought are stressful on tall fescue plants. Instead of the cattle grazing the young regrowth, the plants are allowed the opportunity to fully regrow, store depleted root energy reserves, and recover from the grazing, resulting in a quicker regrowth and a healthier stand.

Decreasing pasture size and concentrating cattle on a smaller area of land will improve forage utilization, decrease stand loss from overgrazing, and improve per acre production. Δ

DR. GARY BATES: Professor and Extension Forage Specialist, University of Tennessee