The Importance of Resting Your Pastures

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Most of us enjoy a good night’s rest and cherish the days when we get to sleep an extra hour. Conversely, we dread the days following a night when we weren’t able to get enough sleep. That next day, we usually don’t get as much work done as we should and we most likely don’t do our jobs very well. The same is true for the plants in our pastures. Without the proper amount of rest, they are not able to perform as well as they should.

To understand why plants need rest, we must first understand the basics about how plants function. There are four basic parts to every plant: leaves, stems, crowns and roots. The leaves are the center for photosynthetic activity. They produce the energy that is later stored in the crown. The stems provide structure to the plant, but do not play a major role in photosynthetic activity. The crown is the main energy storage location. Energy stored in the crown is used to grow new leaves at the beginning of the growing season. Roots provide stability to the crown and stems of the plant, and are the primary means of water and nutrient uptake.

When a plant is grazed, it loses some of its leaves because this is the portion of the plant most livestock prefer. Thus, it loses its energy producing center. The plants’ automatic response is to rebuild that center using stored energy from the crown. If the plant is given rest following grazing, it is able to replace the leaves and replenish the energy supply borrowed from the crown. Without rest, the plant is not able to replenish its energy supply and will continue to use the remainder of its stored energy to produce new leaves. When energy in the crown is depleted and not given time for replenishment, it also has a negative effect on root growth.

As a whole, livestock prefer to graze new lush growth. At the beginning of the growing season, this is not a problem because most plants are actively growing. During this period, livestock show little preference and generally graze pastures uniformly. The problem arises later in the growing season when the livestock continually select for lush new growth, which tends to be the plants they have previously grazed.
As the grazing season continues, livestock repeatedly graze the same plants, resulting in a severe depletion of stored energy and decreased plant vigor.

As energy supplies are depleted, the plant will lose root mass and its competitive advantage over less desirable plants. Over time, the highly preferred plants will slowly die out and the less preferred plants will begin to take over the pasture. This results in a pasture with a much lower ecological condition, thus negatively affecting stocking rate and the performance of grazing livestock. With the proper amount of rest, the highly preferred plants are better able to compete and, hopefully, dominate the plant community. Therefore, if you give your plants enough rest, you will be able to maintain pastures in better ecological condition.

The amount of rest a pasture needs depends on the amount of grazing pressure and the type of forage present in the pasture. Introduced pastures can typically withstand more grazing pressure and require less “rest” time between grazing events, especially when fertilized. Native pastures are more sensitive and require more rest between grazing events. The best time to rest any pasture is when the plants are actively growing.

Being properly stocked is key to any grazing management strategy, and “rest” is probably the most effective tool we can use to produce and maintain healthy pastures. Without rest during the proper time of year, your pastures will steadily decline. Let your pastures sleep an extra hour; they will be happier and so will you.

For additional information about managing your pastures, go to: www.noble.org/Ag/Forage/ImprovePasture.