

DEALING WITH A MOB MENTALITY – PART II

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Last month, I began a series on a grazing method that is growing in popularity in Georgia and the Eastern U.S. As a brief review, “ultra-high stock density grazing” (sometimes called “mob grazing” and which I will abbreviate here as UHSD) is the practice of grazing large herds in a very small area for a very short time (e.g., 200 cow-calf pairs on one acre for 8 hours). In last month’s article, I explained the basics of this grazing method and began to pick through some of the issues that I have with the UHSD rhetoric.

Non-Selective Grazing

There are several nuggets of truth in the UHSD philosophy. One of the most prominent truisms is that cattle that are closely confined in a small area become much less selective in their grazing behavior (i.e., they do not pick out just the highest quality material available, they eat whatever is in front of them). This can be a good thing. In fact, we take advantage of this behavior in other managed grazing systems (e.g., strip grazing, frontal grazing, etc.) and in feedlot systems. However, in all those other systems, we manage them such that ALL of the forage or feed that is in front of them is of sufficient quality for our production goals.

Mature Forage is Less Digestible

This is one of the main sticking points with UHSD. In contrast to those other systems, UHSD proponents insist that the forage should be allowed to reach FULL MATURITY before it is grazed! In fact, one of the most prominent proponents of this made the analogy that we allow corn to fully mature before we cut it for corn silage and that we should do the same for tall fescue. I hate to burst that bubble, but there is a long list of reasons why we finish cattle on corn and corn silage and not on tall fescue seed and silage made from rank tall fescue. I hope that those who don’t understand that will go back and read some of the many forage articles written in the Georgia Cattleman over the years.

The reasons we do not recommend grazing at full maturity are many, but I’ll keep this brief. First, the energy in mature forage is so bound-up in the lignified fibers of the plant that it is rendered unavailable to the animal. Animals that are forced to consume mature forage can only eat so much before they reach the physical limit of their rumen and gastrointestinal tract. If a large proportion of it is indigestible, it will be physically impossible for the animal to extract sufficient energy from the forage and the animal will begin to lose weight or suffer other performance problems. I have heard several reports where producers have switched over to mob grazing exclusively and their cattle have suffered significant body weight and condition score losses.

Equally important is the fact that when forage is allowed to mature, it actually grows slower. The additional forage growth during the maturation stage is dwarfed by the yield from forage that had been grazed off and allowed to regrow during that same period.

To understand how this comes together, consider the following hypothetical, but representative example. A given pasture, consisting of a mix of tall fescue, common bermudagrass, and various weed/miscellaneous forages, was grazed after either a 25-day or 50-day recovery from the previous grazing. Under good conditions, a pasture like this that has been allowed to regrow for 25 days will have about 3500 dry lbs of forage per acre and will be about 60% digestible. If that same pasture had been allowed to rest for 50 days, it likely would have about 5000 lbs of DM per acre and be about 45% digestible (conservatively). As can be seen in Figure 1, the amount of digestible forage produced per acre in the 50-day period is nearly identical to that of the 25-day period. Though the 50-day growth period produces more total forage than the 25-day period, most of that additional forage is indigestible. That’s just more manure. Of course, one should

recognize that they could've gotten TWO 25-day growth periods during the time that it took to rest that one pasture for 50 days. Digestible forage production per acre during the two 25-day periods dwarfs the 50-day growth period. Hopefully, the difference between the two systems is abundantly clear: one produces more high quality feed, the other mainly produces manure.

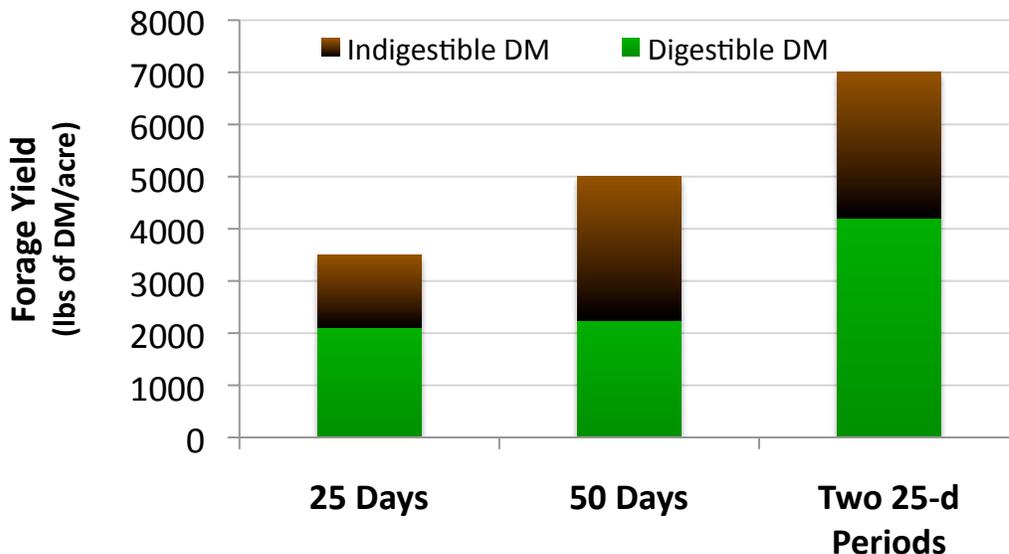


Figure 1. An example of digestible and indigestible dry matter (DM) yield from 50-day recovery period relative to a single and two 25-day recovery periods in a typical mixed pasture in central Georgia.

Pumping Up the Soil

Of course, this concept of “manure is an asset” is pitched as one of the most important parts of UHSD grazing. Here again, there is a nugget of truth in this philosophy. Certainly, pumping up the soil by cycling nutrients more efficiently will be beneficial to the soil, which will benefit the forage growth, and the productivity of the land. One of the most important aspects of this is that intensively-managed grazing also greatly improves soil organic matter (OM).

My colleague, Dr. Nick Hill, has been measuring forage productivity and soil characteristic changes on some of the new pasture-based dairies in the Coastal Plain of Georgia. These dairies go to a new paddock after each milking (two times per day). Unlike our UHSD graziers, however, these dairy graziers use short rest periods (typically a 20-25 day recovery). Dr. Hill measured soil OM within weeks of when they first developed the farm and is monitoring it during the first few years of operation (Table 1). The increase in soil OM that he has observed has been truly incredible! In the 3 years (so far) since the managed grazing started, the soil has averaged an increase in soil OM of 0.35 percentage points per year!!!

Table 1. Improvement in soil OM in three paddocks located in a pasture-based dairy in Wrens, GA. (2007-Present).

| Paddock | Year | | | |
|--------------------------------|-------------|-------------|-------------|-------------|
| | Initial | 1 | 2 | 3 |
| --- Soil Organic Matter, % --- | | | | |
| P4 | 1.08 | 1.15 | 1.25 | 2.20 |
| P8 | 1.01 | 1.17 | 1.59 | 2.18 |
| P14 | 1.14 | 1.63 | 1.86 | 2.00 |
| Avg. | 1.07 | 1.32 | 1.57 | 2.13 |

But, all of this was done using conventional, management-intensive grazing methods, not UHSD grazing. Is it possible for UHSD grazing to do the same? Possibly. As we've already concluded, UHSD methods mainly produce manure. But, despite the pride that UHSD proponents take in this fact, if one studies Figure 1 closely, they might be surprised by what they see. Both systems produce a nearly identical total amount of manure during a 50-day cycle.

To Be Continued...

There is still more to this story, but we'll have to pick up here in next month's article. Therein, I will discuss additional "nuggets of truth" in the UHSD philosophy with regard to soil fertility, weed management, root development, and the sustainability of desirable forage species in stands subjected to UHSD grazing. Until then, if you have additional forage management questions, visit our website at www.georgiaforages.com or contact your local University of Georgia Cooperative Extension office (call 1-800-ASK-UGA1).