

Cattle Business in Mississippi – April 2011 **“Stocker Cents” article**

Grazing Behavior Basics

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In order to optimize livestock production in grazing conditions, the animals must be able to graze the pasture effectively and efficiently. Having a good basic understanding of cattle grazing behavior will help you to anticipate their impact on the pasture and ultimately help improve your grazing management skills.

Cattle usually have anywhere from three to five large meals over the course of a day. The largest meals will occur early in the morning around sunrise and again late in the day around sunset. During the daytime interval between those major meals they will consume a few other smaller meals. Overall they usually graze anywhere from six to 11 hours every day. The bulk of that grazing will be during daylight hours. Cattle do not generally spend a lot of time grazing at night. The exception to this is when daytime air temperature and humidity levels are high. At that point cattle may shift their daily grazing activities to include night grazing when the environmental conditions are less harsh.

The biting rate of cattle is an impressive 30 to 60 bites per minute. Variation in an animal's biting rate can be due to many factors, one of which is the condition of the pasture. In a pasture of short sparse forage cattle will take more bites, but they will be smaller bites. Whereas in a lush thick pasture the animal may take fewer bites, but each bite will contain more forage. This behavior can also impact the total time they spend grazing each day. Where there is an ample supply of good quality forage, cattle will spend less total time grazing than when the quantity and/or quality of forage are inadequate. Cattle exhibit preferences for different parts of the plant based on their palatability. That extra time spent grazing when pasture conditions are less than favorable is because the cattle are spending extra time searching for the most palatable forage from what is available. So even though they appear to be grazing for a long period of time, their actual intake may not differ or may even be less than that of cattle in pastures of adequate forage availability that spent less time grazing.

Cattle will consume young tender leaves before eating more mature leaves or stems. This is also why you may see pastures become “patchy” under continuous grazing conditions. There will be certain areas of the pasture that cattle will graze and then revisit at a later date to graze the regrowth, never allowing the area to become too mature. This is much like what happens when you mow your lawn on regular intervals. Areas in a pasture where forages have become more mature will be avoided because of their decreased palatability. Cattle will avoid those areas and the plants will become even more mature. All this leads to the formation of both under and over-grazed patches in the pasture.

Another cause of mature patches in pastures is the result of cattle avoiding areas where they have defecated. Even if those areas have new plant growth, cattle will generally not eat plants that are too near their own feces. Over time that new growth matures contributing additional mature patches to the pasture that will be left ungrazed. Eventually when the feces have broken down cattle may return to graze there. But again, if they have more palatable forage elsewhere, they will graze the new growth first.

Pasture condition will also impact how much time the animal spends ruminating each day. In general, cattle probably spend five to nine hours each day ruminating. Most ruminating occurs at night when cattle are bedded down, but cattle also ruminate between meals during the day. The more mature the forage is that is being consumed, the more time the animal must spend ruminating in order to breakdown that forage for further digestion. Eventually, daily intake may be restricted when mature forage is consumed due to the excessive amount of time necessary to ruminate that forage.

Since the biggest meals of the day are at dawn and dusk, this means that interrupting those meals will cause a change in the animals' natural grazing behavior. If animals are being fed supplemental feed, think about what time of day that feed is offered. If it is early in the morning during one of their biggest grazing meals of the day they will stop grazing to consume the supplement. This will result in less time spent grazing. However if they are fed the supplement in the middle of the day or early afternoon, this will not interrupt the morning meal and they should still resume their large evening meal as normal. Interrupting the major grazing meals of the day may lead to a decrease in forage intake and animal performance.

Take the opportunity to watch your cattle during different times of the day and pick up on their customary behaviors. Also take note of how they behave when grazing during different times of the year, when grazing various types of forage, and when different supplemental feeds or hay are offered. Having the knowledge of what their routine behaviors are will help you determine how well they are responding when new or different management regimes are being implemented.

For more information about stocker cattle production, contact an office of the Mississippi State University Extension Service.