

BeefTalk 778: Grazing Systems Combine MLRAs and Ecological Sites

Grazing systems are dependent on location and available feed.

As grazing systems are discussed, the complexity of the systems actually can hide the simplicity.

As an animal breeder, whenever I move into different disciplines, I find myself needing to review information that has changed. Actually, in the beef industry, implementation and refinement of technology is often the point of interest.

As I was starting the discussion of cow size from a genetic point of view, the discussion shifted to inputs. The inputs are not genetically related. There would be no discussion if the inputs were all the same, but they are not, and inputs change depending on the size of the cow.

Understanding the inputs is critical to the discussion. The nutritional inputs are to be discussed first and are quickly divided into two major components: feeding harvested feeds or grazing unharvested feed.

For today, let's discuss grazing the unharvested feed. The grazing component is land-based and, at least for me, I benefit by reviewing what that means.

Land is divided into major land resource areas (MLRAs). These MLRAs combine the knowledge of geology with soil types, historic climate, moisture patterns, vegetative growth and land use.

Perhaps another way to look at MLRAs is to think about the location of different feed yards for feeding harvested feed. A feed yard in Florida is different than one in Iowa, Kansas, Arizona, Idaho or North Dakota. In fact, each location across the U.S. builds and manages feed yards according to the needs and demands of the location and associated climatic factors.

Engineers have developed structural and environmental specifications for each location. Feedlot producers can access those specifications as they develop or expand their feed yards. Likewise, cow-calf producers, backgrounders and forage finishers must adapt their programs to their locations, as defined by the MLRA in which their operations are located.

The Natural Resources Conservation Service (NRCS) or the Extension Service, through their local offices, have access to all the needed information through the Web. As producers learn to access this information, the Web opens up a tremendous resource, and any producer can locate the MLRA he or she is located in, as well as the description, at the NRCS. This information is available at <http://tinyurl.com/NRCS-MLRA>.

Maps that will make locating your MLRA number very easy also are available by searching the Web. Geologists, with the assistance of other land-based professionals, have classified the land area of the U.S. and throughout the world, allowing for each area to be assigned a number. For the Dickinson Research Extension Center, located in North Dakota's Dunn County, the MLRA is 54.

Why all the comments on MLRAs? Well, grazing systems are location-dependent, just like feedlots. There is no reason to read all the specifications for a feedlot in Florida when a producer is building a feedlot in North Dakota. Likewise, the grazing system specifications are MLRA-dependent when it comes to

determining stocking rate. So, at least in my review, I am one step closer to the initial question: "How many small, medium or large cows can I stock?"

The next question is: "What is the feed supply?" As with a feedlot, knowing what feed ingredients are available when developing a ration is important. So cow-calf producers, backgrounders and forage finishers need to ask what ecological sites are available to develop a grazing system.

That sounds kind of funny, but if a feedlot has corn and soybeans available, the feedlot will develop feeding regimes based on the local feedstuffs. Another feedlot may have sorghum and cotton seed byproducts available.

Ecological sites are much like the feed that is in the bucket. Producers need to know what is available within the MLRA in which they are operating, thus the need to understand ecological sites.

An ecological site, as noted by Kevin Sedivec, NDSU Extension rangeland management specialist, and Jeffrey Printz, state rangeland management specialist for the NRCS, is a distinctive kind of rangeland based on similar soil and environmental conditions capable of producing distinctive kinds and amounts of native herbage (<https://www.ag.ndsu.edu/pubs/ansci/range/r1556.pdf>). Once each ecological site is identified and quantified, the potential feeding (or grazing) value based on ecological site can be determined. Thus, the estimated stocking rate is a function of the available ecological sites within the pasture based on the MLRA. I'll have more on this topic later.

May you find all your ear tags.

Your comments are always welcome at <http://www.BeefTalk.com>.

For more information, contact the NDBCIA Office, 1041 State Ave., Dickinson, ND 58601, or go to <http://www.CHAPS2000.com> on the Internet.

Must-know Grazing System Terms for the Beef Industry

Major Land Resource Areas:

A broad geographic area that is characterized by a particular pattern of soils, climate, water resources, vegetation and land use.

Ecological Sites:

A distinctive kind of rangeland based on similar soil and environmental conditions capable of producing distinctive kinds and amounts of native herbage.

Sources: Sedivec and Printz
(www.ag.ndsu.edu/pubs/ansci/range/r1556.pdf)