BeefTalk 779: Setting the Base Stocking Rate

Once the weighted stocking rate average is calculated, producers can begin stocking at the right number.

I continue my efforts to better understand stocking rate, a simple, yet difficult, concept.

The reason rests with the way the stocking rate is calculated and the numbers that need to be known to achieve the correct number.

In my search to better understand stocking rate, I obtained a better appreciation for major land resource areas (MLRA) and ecological sites. For instance, by looking up the MLRA for the Dickinson Research Extension Center (DREC) ranch in Dunn County, N.D., the MLRA is 54.

I quickly jump to the "Web Soil Survey Home" to start the computer app. I can type in "Dunn County, North Dakota'" under the state and county tab to the left, and with three mouse clicks, I can enlarge the DREC ranch. The pasture of interest is one we call Section 16, and making Section 16 an "Area of Interest" allows me to focus the stocking rate question on this pasture. The pasture has 19 identified ecological sites, and the acreage and percent of the pasture that is made up of each ecological site are available.

After further consultation with a range professional, the estimated safe starting stocking rate of each ecological site within the pasture can be determined, and a weighted average across the 19 ecological sites for the total pasture estimated safe starting stocking rate is calculated.

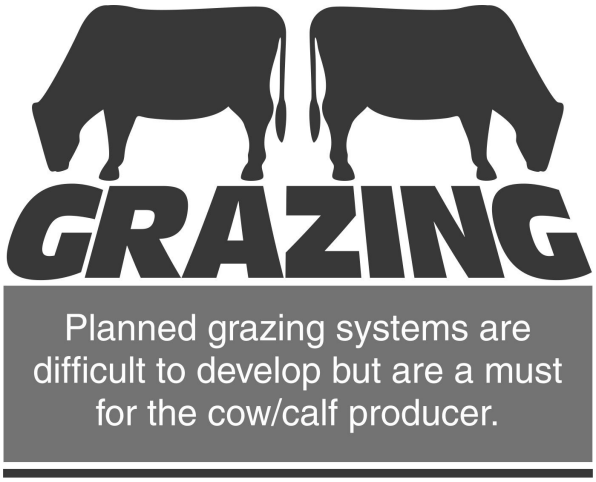
Although these calculations are complicated, through the help of modern computer skills, these averages are easier to get. Certainly through the assistance of the Natural Resources Conservation Service (NRCS) or the Extension Service through its local offices, the needed information can be gathered and reviewed.

Essentially, once the weighted stocking rate average, based on known ecological sites, is calculated, any producer can proceed with stocking at the right number. Keep in mind that these initial numbers are estimates based on soil surveys conducted during many years by many individuals. These numbers always need to be ground-proofed and adjusted according to range conditions.

Range that has been abused and overgrazed would not be ready for even the recommended starting stocking rates. Other pastures that have had proper grazing systems established and been utilized properly through the years could stock above the starting stocking rate. That is where the establishment of a proper grazing system is critical and subsequent evaluation of the grazing plants is desirable.

Back to my quest to better understand grazing systems: I am, at this point, comfortable that grazing systems are the living source of nutrition for cattle, much like pens and feeds are the sustaining food for cattle that are not grazing. The fundamental data that goes into any grazing system ultimately projects the acres per animal unit or animal units per acre that any given pasture can support for the growing season, as well as sustain a healthy plant community for future grazing seasons.

I doubt that most individuals will take the time to do all the inputs and calculations required to establish and maintain a grazing system on a particular pasture at a particular point of ground. But all producers should seek out a professional grazing expert who knows how to gather the input and make the correct calculations to establish and maintain a grazing system unique to a producer and point of ground.



Back to the DREC: Section 16 has had all the data collected, and after a review of the 19 ecological sites present within MLRA 54, the pasture will be managed with a twice-over rotational grazing system to complement and enhance the sustaining plant community.

The grazing season is projected to be 135 days, or 4 1/2 months. The stocking rate is based on peak forage production obtained from seasonlong grazing management, with anticipated improvements increasing forage production in future years.

For this year, Section 16 has three pastures of approximately 200 acres each. Based on the MLRA, ecological sites and historical production, the level of forage production is estimated to sustain 52,809 pounds of 1,000-pound cows, or 52.8 animal units (one animal unit equals a 1,000-pound cow plus calf) for 4 1/2 months while rotational grazing the three 200-acre pastures. That is .41 animal unit month (AUM) per acre, 11 acres per animal unit or 2.45 acres per AUM.

Thus, the current stocking rate is 2.45 acres per AUM or .41 AUM per acre. Either way, I have spent the last two hours trying to get these numbers straight. The math works, the range professional knows, and now I can put 52 1,000-pound cows out to pasture on Section 16.

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.