

# Gear up for Grazing

*With spring green-up around the corner, range managers share grazing strategies that will help cattle make the best use of pastures.*

Story & photos by  
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When it comes to eating, cattle can be a lot like kids. Beef cattle often have their favorite forages and loafing spots in a pasture, and they may leave some areas and plants untouched. That's where grazing management comes in. It requires planning and implementing practices that will achieve a balanced use of forage resources.

Range conservationist Dennis Froemke, with the Natural Resources Conservation Service in North Dakota, says there's no such thing as "no" grazing management. "Grazing is either done by design when controlled by a knowledgeable manager or by default when animals are allowed to graze at will," he says.

Fortunately for producers, there are several relatively simple options to help garner the best use of available forage resources. It just takes some planning, grazing specialists say.

To get you and your herd ready for the grazing season ahead, three range managers review some of the tried and true practices to improve forage utilization, as well as some new ideas in grazing management.

## Have a plan

Before the start of the grazing season, Froemke advises that producers map out a grazing plan for the entire season. The most important part of that plan is to graze pastures at a different time than they were grazed the year before.

Hugh Aljoe, a forage management specialist with the Oklahoma-based Samuel Roberts Noble Foundation, agrees. He says the most common mistake he sees produc-



ers make is "they always start grazing animals in the same place."

"Don't go to the same pasture at the same time every year," Froemke says. He explains that this is critical — especially on native range — to maintain a diversity of plant species.

"Native rangelands have plants that are ready to be grazed at different times during the grazing season. If you return to the same pasture at the same time annually, the same species of plants are always being grazed, while other species that mature later are left untouched. Over time, the plants that are always grazed will be eliminated from the species mix because they are never given a chance to mature," Froemke says.

Changing the season of use on tame pastures isn't as crucial, Froemke says, because those are typically a monoculture (only one species). But, if the chance is there to alternate which tame pasture cattle start grazing first, do so.

## Don't jump the gun

Once your grazing plan is in place, be patient. In the northern Great Plains, Froemke says, a common grazing mistake producers make at spring turnout is putting cattle on pasture before the plants are ready to be grazed. This is especially important on native rangeland, he adds.

"Hold off on native range until it's ready to go," he advises. "You'll set your pastures back by going on too early, and you won't get as much forage out of it."

For that area encompassing North and South Dakota, Montana, Wyoming and Nebraska, Froemke says a good rule of thumb is to start grazing tame pasture around the first of May. Native rangelands



Fencing has long been a strategy to restrict animals from grazing in sensitive areas, like riparian zones. Fencing large pastures into smaller paddocks can also help achieve better overall forage utilization across the area.

are typically ready to be grazed by about the first week of June.

## Keep cattle moving

But once the grass is ready, stay on top of it. For producers working with an abundance of introduced forage grass or tame pastures, Aljoe says it is critical to utilize plants as they are ready. "I often see that some pastures don't get grazed soon enough once they are in rapid growth phase," he says.

In the South, Aljoe suggests producers watch for annuals to green up on pastures, and then have cattle graze them down

quickly. "Make sure the cool-season forages are getting used," he says. If cattle can't keep up, he recommends producers hay that excess forage by early May, so warm-season grasses — like Bermuda grass and the Old World bluestems — can come in for grazing later in the season.

Froemke's advice to Northern producers is the same. He advises rotating cattle quickly through native pastures — and then returning for a second grazing after all of the pastures have initially been grazed. He suggests cattle spend only about 7-10 days in a pasture during that initial grazing period.

Froemke explains that the reason for this twice-over grazing tactic is twofold. First, it can increase — even double — forage production, he says. When animals graze plants a first time, the plants respond by producing high-quality regrowth. So, when animals return to pastures for the second grazing, the quality of the forage is improved, and producers get additional yields from the grass, he explains.

The second reason is that it maintains some plant cover to collect moisture. "During the initial pass through of pastures, cattle are only lightly grazing the entire area," Froemke says. "Thus, some plant litter and canopy is maintained, which helps collect any moisture and maximize infiltration into the soil."

He says that on the second grazing pass forages can be grazed a little heavier, but be careful. "You never want to push any pastures too hard. If you remove too much vegetation you'll lose the plant cover that catches water," he says.

Aljoe issues the same caution. "Always remember to keep residual plant cover at no less than 3 inches of stubble on tame pasture to conserve water and protect the soil from erosion," he says. Maintaining a longer stubble height is preferred on native pastures, he adds.

### **Build it and they will come**

Finally, one of the biggest headaches for producers is often the challenge of getting cattle to graze pastures uniformly. Whether it's tame pasture or native range, many producers lament that they have areas — like the lush riparian zones — that are overutilized, and other areas — in the uplands — that are barely grazed.

Fencing pastures into smaller units for better utilization is obviously an option, and on tame pasture it may be the best option. Aljoe says keeping pastures small and then



Locating alternative water sources off streams, or even in uplands that receive little grazing, can help attract cattle away from riparian areas.



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increasing stock density on those smaller areas can force more-uniform forage utilization.

But, fencing can be a costly alternative. Fortunately, there are other viable management practices, such as water developments, that attract animals to seldom-grazed areas without the need for fencing.

Froemke says, "By placing water developments throughout a large area, and restricting use of them, you can almost create zones that get grazed without the extra cost of fencing."

For example, if you have five water tanks spread across a section and turn water off at all but one of them, cattle will concentrate in the area where the water is. When the forage has been utilized in that area, turn off that water and move the animals to a second location where a new tank is turned on. (If using dugouts, fence them out, close the gate and move cattle to the next location with water.)

Froemke says this strategy works best in areas of rugged terrain, where steep slopes create some natural barriers from one watering zone to the next. As a rule, he suggests placing water every half mile in rugged terrain and every mile in rolling hills.

Derek Bailey, assistant professor with

Montana State University, says another common mistake he sees producers make is to move cattle into a new pasture, entering near a stream so that cattle know where the water is. Instead, Bailey suggests trying to introduce cattle to a new pasture at an off-stream watering site or tank, so the cattle aren't apt to continually return to the stream.

Bailey has done several research projects with supplements, looking at how to improve livestock distribution and ultimately to increase the uniformity of forage utilization on rangelands. Working from the principle that locating salting grounds in seldom-grazed areas — like upper hills — can entice livestock to graze those areas, Bailey has studied using low-moisture molasses blocks as an attraction. His research indicates that strategically placed molasses blocks can be even more effective than salt at getting cattle to utilize rugged terrain.

"The molasses barrels appear to be a more powerful tool than salt, especially in late summer and fall and winter," Bailey says. "Cattle had a higher preference for the molasses and used it more consistently." He credits that to the fact that the molasses is high in protein and more palatable. "It's a better nutritional reward than salt."

Bailey says that once cattle are attracted to an area with the molasses tubs, his research indicates the cows will lick the supplement and then graze within 600 yards from the area.

"We've been able to gain 10% to 15% more utilization in rugged terrain. For example, where we once had 5% use, with the blocks we may now have 20% use," Bailey says.

He points out that the extra forage being utilized pays for some or all of the cost of the supplement. "And, that doesn't even factor in the nutritional value of the supplement to the cattle," he says.

If you plan to use salt or molasses tubs (or the two together), Bailey suggests first putting the supplement near water to introduce cattle to it. After a few days, move it out a quarter to half mile from the water. As animals utilize the forage around the supplement, continue to move the blocks up slope and farther out.

This trio agrees that salt or supplements should never be placed permanently near water.

Finally, mowing or burning forage in un-

derutilized areas can work in much the same way as salt or supplements. These methods increase forage production and improve nutritive qualities of forage, thus drawing animals into an area. Froemke says, "Just reducing a lot of standing dead material can help make an area more attractive for grazing."

### Consider your cattle

One of the newer tactics in grazing management involves considering the type of cattle grazing an area. Bailey says the type of animal (e.g., cow-calf pairs vs. dry cows), the environment an animal was raised in, and even genetics appear to influence which cattle will better utilize rugged terrain.

For example, he notes that dry cows tend to travel farther and use steeper slopes. So, Bailey suggests, "Producers may want to

use more-rugged pastures in the fall after weaning, rather than grazing pairs on those sites."

Familiarity with an area can also influence grazing patterns, according to Bailey. Experienced cows often seek out more productive grazing areas and have a wider grazing distribution than cattle that are newer to the herd. Also, cattle raised in a mountainous setting will be more apt to graze steeper slopes than cattle raised on the flatlands, Bailey says.

Hence, Bailey suggests that if you are purchasing replacement females, you try to buy them from the local region so animals are familiar with that terrain.

Bailey's most recent research is looking at the possibility of selecting for cattle that use hill country and culling the cattle that hang on riparian areas. Initial results from a

five-year study in Montana indicate this strategy has potential, Bailey reports. But, until further research is conducted, he's not ready to make any firm recommendations for this practice. (For more information on the study see, "Selecting for hill climbers," page 98.)

"There are lots of alternatives available to improve distribution on range versus just fencing animals out, and we're researching new tactics," Bailey says.

"Many of these are low-cost fixes," he adds. "Producers just need to pay attention to the pastures that have some grazing distribution problems, and then take a proactive approach to manipulate where cattle graze."



## Selecting for hill climbers

Beef producers are accustomed to selecting for traits aimed at calving ease, growth and carcass performance. In the future, grazing ability may also be added to that list of selection criteria.

That's according to Derek Bailey, an assistant professor with Montana State University based at the Northern Ag Research Center in Havre. During the last five years, Bailey has been involved with grazing research to identify if there are certain cows that are bottom dwellers (those that primarily graze gentle slopes near water and in riparian areas) and certain cows that are hill climbers (those cattle that travel farther from water and graze steeper slopes).

To evaluate their theory, in 1997 and 1998, Montana researchers observed two cow herds (each about 150 head) to determine if animals could be categorized into bottom dwellers and hill climbers. From their observations, they were able to split each herd into a group of hill climbers and a group of bottom dwellers. Then, grazing patterns of the two herds of hill climbers and two herds of bottom dwellers were observed for three years, from 1999-2001.

By separating the hill climbers from the bottom dwellers, Bailey says they wanted to determine if getting rid of the bottom dwellers resulted in other animals moving down from the uplands to take their place. To monitor the results, the researchers took three measurements: 1) forage or stubble height, 2) animal locations of the entire herd from horseback three times per week, and 3) locations of some of the animals at all times through the use of global positioning system (GPS) collars.

What did they learn? Overall, Bailey says, "In both herds the hill climbers used the whole terrain — especially the slopes — more uniformly than the two herds of bottom dwellers."

He reports that in sensitive riparian areas, the bottom dwellers had an average stubble height of 3 inches (in.). Hill climbers had an average stubble height of 5 in. in those sensitive sites. "That's an important difference we observed, and it was statistically significant," Bailey says.

"On public lands many agencies like to have 4-5 inches in stubble height remaining at the end of the grazing season," he adds. "So essentially, we had one group that passed and one that didn't."

Regarding performance, Bailey says, "It doesn't look like culling bottom dwellers will impact weaning weights or pregnancy rates."

Bailey says the results from this five-year study are very positive. "We think eventually producers will be able to select for hill climbers and against bottom dwellers," he says. In fact, he says some Western producers are already culling the cattle that hang out on stream banks. "They're reporting that it makes a difference,"

But Bailey wants to conduct more research before making management recommendations. "We want to test more practical applications and the feasibility," he says.

He also plans to evaluate the role breed may have on cattle's ability to use rugged slopes.

For more information on this research, contact Bailey at [dbailey@montana.edu](mailto:dbailey@montana.edu) or call (406) 265-6115.

