

TGM manages grass

By DON McCABE

TWENTY-FIVE years ago, Homer Buell considered himself a cattle manager. Beef, of course, remains the finished product at Shovel Dot Ranch near Rose, but he and son, Chad, now place as much or more emphasis on grass. "Grass is the biggest resource we have on this ranch," Homer says. "How we manage our pastures determines our beef production and profitability."

But grazing decisions are never simple, considering the mix of grass species, availability of other forages, the herd numbers and the vagaries of Mother Nature, especially drought.

That's where The Grazing Manager fits in on the 30,000-acre Sandhills ranch that was established in 1883. "TGM has made us better managers," Homer says, referring to the family partnership that includes Homer; his brother, Larry; and their families.

TGM is a computer-based tool, originally developed by Mort Kothmann at Texas A&M, that generates a grazing plan, including grazing schedule and stocking rate, after factoring in the rancher's input on herd size, types of cattle, weights and pasture rating.

TGM, according to Homer, also monitors the amount of available forage and the use of

At a glance

- Software improves grass resources at Shovel Dot Ranch.
- Ranch generates grazing plans using TGM program.
- The software was developed at Texas A&M University.

forage from grazing or haying. "It tracks the balance between forage and demand, and allows us to make decisions accordingly," Homer says.

"At the end of the year, it's an actual record of what we've done," he adds.

Agren, a consulting firm that assists the Buells with TGM, is working on developing multi-year reports for a pasture for comparison purposes, but the reports are not yet available.

Grazing plan

While Homer first used the program in 1995, Chad began running it when he returned to the ranch from the University of Nebraska-Lincoln in 1999. The Buells' rotational grazing system must accommodate seven groups of cow-calf pairs and five groups of yearlings, their own and some they purchased. There also are groups of breeding heifers and bulls. That's a significant number of pastures to rotate.

They calve in April and strive to graze year-round, although there's a 40-day window

from early April to around May 10 where they usually have to feed hay.

In their rotational grazing system, the Buells' objective is grazing no more than 50% of the pasture growth in the growing season, with some slightly higher uses while the grass is dormant. Homer describes that as "moderate use" to maintain the health of the grass.

In winter, Chad has TGM produce an initial grazing plan for all pastures, each of which is given a name or number. For instance, the "date in" for one group of 230 breeding heifers on one pasture might be May 8 and the "date out" May 12. Later in the summer, an example would be from June 22 to July 15.

Each pasture is given a rating related to its production capacity, which the Buells determine based primarily on their experience over the years. Production capacity is typically measured in AUMs, or animal unit months. TGM, however, uses the term "demand day" to measure animal demand and pasture productivity.

"TGM evaluates pastures in terms of their ability to support animal maintenance and gain," Homer says.

TGM also has a built-in pasture-rate-of-growth curve for various regions of the country, including the eastern Sandhills

where the Buells ranch. TGM considers all this information, plus the 50% moderate-use goal.

While the plan is the basis of their grazing schedule, it can be adjusted as the season progresses, and recent dry years have made that a necessity, according to Homer. In fact, TGM developers say the program is a useful drought tool (see accompanying story at right).

It also assists in determining hay needs, based on its pasture supply-and-demand estimates.

Communication tool

"Having TGM's printout of grazing schedules is useful also as a communications tool for each family member and employee responsible for a specific set of pastures. They each have the printout to guide them when to move cattle," Homer says.

Homer has always looked outside the box as far as grazing techniques. In the mid 1980s, he attended holistic resource management schools and believed the ranch benefited.

"But we never had a way, until TGM, to measure what impact we were having. If we manage better, using TGM, our grass will be in better shape under any kind of stress. I'd hate to go into a grazing season without it."

USDA adds another use for software

AS part of a USDA Risk Management Agency project, The Grazing Manager software is being refined and promoted as a tool to help ranchers cope with drought risks.

In 2004, Agren Inc., a Carroll, Iowa-based private consulting firm that "helps agriculture find profitable solutions to environmental challenges," partnered with RMA on the project. USDA funding means that TGM is in the public domain and, thus, free to the public.

Agren has worked with agencies, organizations and individuals on a variety of projects, including wildlife habitat, watershed management, manure brokering, nutrient and manure management, risk management, soil/water conservation planning, and research.

"Agren has partnered with farmers on a lot of crop and conservation issues," says Rob Ravenscroft, a former Sandhills rancher who is TGM consultant for the company. "This is Agren's first venture into grazing management."

Two years ago, Ravenscroft says, Agren staff saw the need to develop a tool to help ranchers and range managers make tough decisions about their herds during prolonged drought. After analyzing 17 different tools, Agren selected TGM.

Since the concept of crop insurance doesn't fit grazing, RMA is looking for ways to mitigate the cost of drought to ranchers and help them get ahead of the curve to react to drought.

"The appropriate stocking rate in the arid and semi-arid rangelands of the world is a moving target," he says. "Drought requires adjusting the grazing schedule and/or herd numbers, but when you visually notice that cattle aren't performing well, it's too late. TGM can forecast how long a group of cattle can stay in a pasture by determining when the forage and demand balance will be undone."

For information on TGM, contact Ravenscroft at 402-328-8149 or e-mail rravenscroft@neb.rr.com.

For a copy of The Grazing Manager, e-mail tgm@agren-inc.com.



SOFTWARE SOLUTION: Homer Buell and son, Chad, say using The Grazing Manager software to make decisions about their grazing resources makes them better managers.