As Winter Thaws, Have Your Soil and Grass Ready for Efficient Grazing

In the quest for thriving cows and calves, grass comes first

By Larry Stalcup

For the most part, cattle producers think alike across the Southwest. But rangeland across the vast region is as diverse as its contrary climates.

Drought-tolerant pastures west of I-35 ordinarily won't support nearly as many cattle as more lush fields that typically receive more rain farther east. Despite where your cattle graze, it's essential to know a pasture's grazing potential — its nutritional value and the volume of grass that's available to herds coming out of winter's thaw.

Spring range and pasture management can mean the difference in whether your cows calve, and whether those calves thrive to their fullest. Dr. Wade Nichols, senior technical advisor for Merck Animal Health, says soil and forage analysis, weed management, proper supplementation and rotational grazing all help cattle perform better.

Soil and forage analysis

Nichols says soil should be tested every few years to gauge pH and nutrient levels, which assist in adjusting pH and fertilizer recommendations.

"Soil is the foundation for forage growth that provides the nutrients to cattle," he says. "Even in the more arid areas, where producers may not have the capability to fertilize much of the pasture, it's still a good idea to know your soil profile and how it might be changing over time.

"This change may explain why certain species of plants are dying out or proliferating, why certain weeds are becoming more prevalent and what you can do to control them."

In addition, Nichols recommends taking random forage clippings from the pasture for analysis to help determine mineral availability and deficiencies, as well as basic protein and energy availability.

Once nutrient content is measured, fertilizer decisions can be made based on the soil profile, weather, the type of forage and whether irrigation is available. Spot fertilizer applications may be more feasible in more arid areas.

As another important pasture management procedure, Nichols suggests producers harrow the pasture once cattle are removed.

"This practice spreads manure more evenly across the pasture as a fertilizer and tends to help reduce parasite burdens in the pasture by exposing certain stages of the parasite to the open environment."

Scout for weeds

Weeds and brush rob pastures of water and nutrients. "A weed is a 'plant out of place'. It can be anything from volunteer corn to noxious plants that invade all pastures," Nichols explains.

"It's a good practice to drive or ride pastures and take inventory of the weed population. You may have

annual, perennial, broadleaf, vine or grassy weeds. Knowing what's in your pasture will help determine a comprehensive weed management program."

Weed management might require grubbing, spraying, mowing or even using another species of livestock to graze the weeds. "When using herbicides, it's critical to choose the correct herbicide and follow label instructions for the correct time of year," Nichols points out.

"On improved or irrigated pastures, it may be feasible to spray the entire pasture. In more arid country, it will most likely require spot spraying of weed infestations. Before spraying, know the stage of plant growth, correct dosage and animal exposure restrictions following application."

Sort by pasture

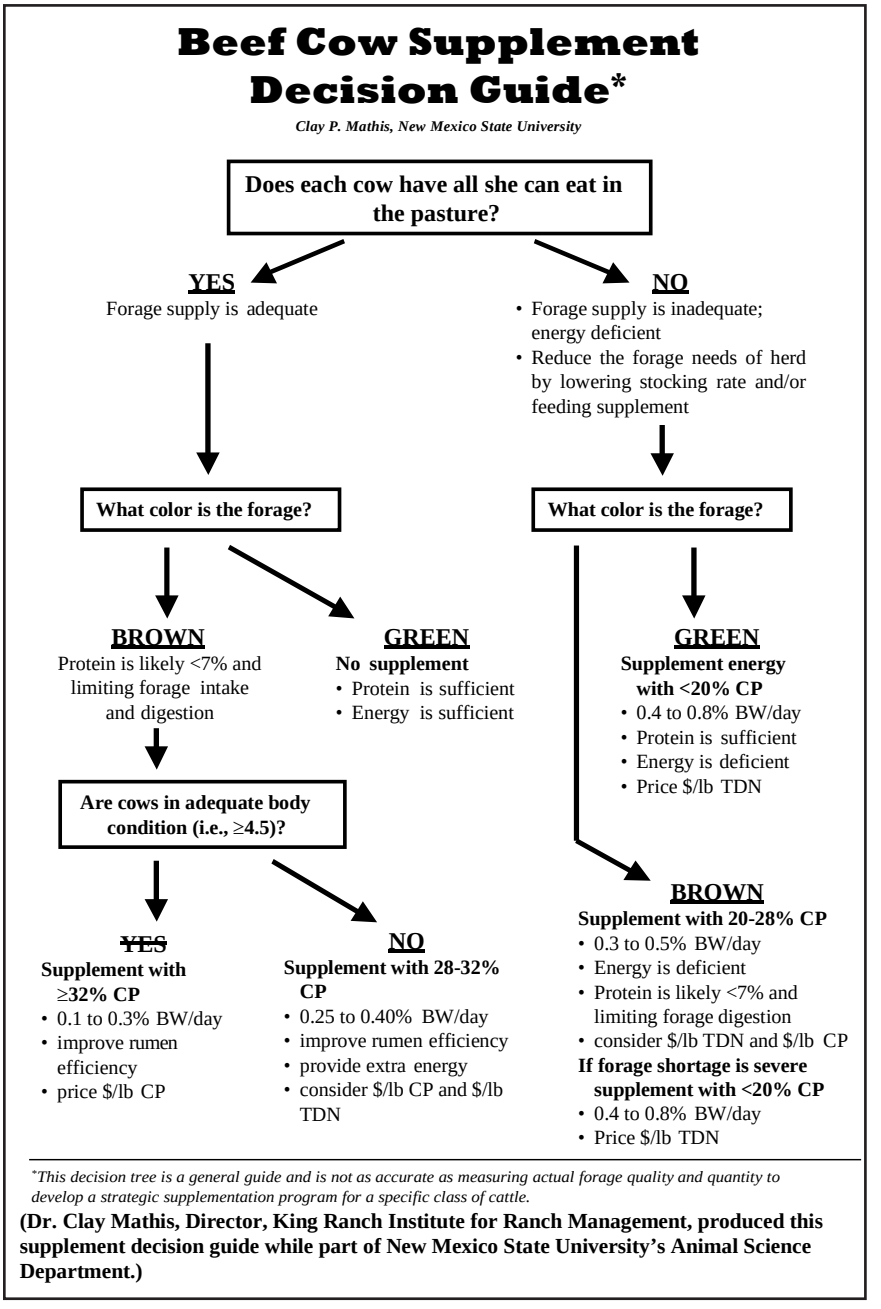
All grazing patterns differ. If possible, Nichols recommends that cattle requiring more nutrition be placed on higher quality forage.

" The idea is to use your pastures wisely and adequately, while reducing or delaying the need to buy additional feed or supplements," he says. "If possible, sort your cattle by breeding heifers, first-calf heifers, poor-conditioned cows, adequately-conditioned cows and over-conditioned cows.

"Breeding heifers and first-calf heifers are still growing and have higher nutritional requirements. Ideally, those animals requiring the best nutrition will go on your best pastures.

"Poorly conditioned cows also need more nutrients to improve their overall condition. Cows with adequate condition and those over conditioned would be turned out on good to moderate pastures."

Vitamin and mineral supplements should always be provided during the grazing season. Based on forage nutritional value, supplements can be provided in loose form with wind and rain protection, in blocks or tubs or incorporated with feeds.



*This decision tree is a general guide and is not as accurate as measuring actual forage quality and quantity to develop a strategic supplementation program for a specific class of cattle.

(Dr. Clay Mathis, Director, King Ranch Institute for Ranch Management, produced this supplement decision guide while part of New Mexico State University's Animal Science Department.)

"It doesn't matter whether cattle are grazing on improved or irrigated pastures or in arid country; they all need vitamin/mineral supplementation," Nichols stresses. "Depending on pasture quality and class of cattle, different supplement decisions need to be considered throughout the grazing season.

"In order to assist in this process, the use of a consulting nutritionist, feed company nutritionists, or university nutritionist is highly recommended."

In general, Nichols notes when forage is mature, a protein supplement can help improve digestion of the forage and increase dry matter intake. Whether forage is limited, or even in lush green pastures, an energy

supplement might be warranted to provide the energy needed to the animal.

"Supplements can increase forage consumption," he says, adding that cattle need at least 8% protein to have a viable microbial population in the rumen to digest forage. This increases the amount of energy intake and improves weight gain."

By strategically placing the supplements, they can help assure that cattle graze different parts of the pasture. This can help increase stocking rates, as well as improve or maintain better animal health and body condition score and overall growth rates.

Rotational grazing

This important aspect of pasture management reduces the chances of over-grazing, which often reduces future forage growth and promotes higher weed infestations.

"Rotation of pastures will depend on a number of factors," Nichols says, "including the size of the pasture, the species of forage available at different times of the year, the number of animals on that particular pasture, rainfall, temperature and drought.

"As a rule, turn out cattle on pasture when forage is 6 to 8 inches in height and remove animals when forage is 2 to 3 inches in height. This will vary, but that range of forage height will typically contain the highest available nutrients for the animal.

"In the more arid country, it may be advisable to rest a pasture for an entire year to allow soil and water profiles to improve and allow the forage to recover. Resting a pasture for a year also assists in reducing parasite burdens on those pastures."

Keep cattle healthy

First and foremost, Nichols stresses that cattle should be in good condition coming out of the winter. "Cows should be exhibiting a condition score of 4.5 to 6 going into the spring," he says. "This facilitates calving and rebreeding nutrition.

"Secondly, it's ideal to have a pasture where you can calve cows. Then, move cow/calf pairs from the calving pasture to another pasture as soon as reasonably possible."

This helps reduce the accumulation of pathogens on the calving pasture and exposure of the calves to those pathogens. Nichols says a detailed, well-planned vaccination protocol, parasite control, implant protocol for the calves, and overall animal health program is a must for breeding stock and calves to get the most out of pastures.

"Remember, the eye of the master fattens the calf," Nichols concludes. "Observe and know your cattle and your grass in order to understand where they are in terms of condition.

"It doesn't matter if it's a cow, a calf or a stocker. The condition of the animal and the pasture will tell you when it's time to supplement or move cattle. First manage the grass, then manage the cattle, then manage yourself." ▮

Larry Stalcup is a freelance writer from Amarillo.