## Southern Great Plains

 byoandialmanOKLAHOMA STATE UNIVERSITY david.lalman@okstate.edu
Winter wheat pasture conditions are improving throughout most of the Southern Great Plains as of this writing. Small-grain winter pasture is an excellent protein and energy source. Fall-calving, lactating cows perform extremely well when grazing abundant wheat pasture. We tracked performance of lactating Angus cows and their calves grazing wheat from January through May (Table 1).

Notice cows averaged 26 pounds (lb.) of milk yield during latelactation, and still managed to gain more than 2 lb . per day, along with tremendous increase in body condition. The combination of forage quality and high forage intake can result in cows becoming overly conditioned. This would certainly be a concern in spring-calving cows, as their nutrient requirements are substantially lower during gestation.

Limiting wheat pasture forage intake can serve to control cow condition and stretch the expensive, high-quality forage over more grazing days. One approach is to limit-graze the wheat as a protein and energy source to complement low-quality standing forage or hay.

We discovered about nine to 12 hours per week of access to wheat pasture (three to four hours per day, three days per week) met

TABLE : Performance of fall-calving cows and calves grazing wheat pasture January through May

| ITEM | JANUARY 9 | MAY I8 | ADG, LB |
| :--- | :---: | :---: | :---: |
| Cow Weight, Ib. | 1,157 | 1,429 | 2.1 |
| Body Condition Score | 4.8 | 6.7 |  |
| Milk, Ib./day | 27 | 25 |  |
| Calf Weight, lb. | 262 | 714 | 3.5 |

supplemental protein and energy needs for lactating beef cows.
Using this method, we were able to stock cows at about a cow-calf pair to 0.7 acres of wheat pasture from mid-November through mid-May. Hours on wheat can be adjusted to maintain a minimum level of cow body condition. We simply fed lowquality native grass hay in drylot pens when the cows were not grazing. Stockpiled forage in a pasture adjacent to the wheat pasture would be an ideal situation to minimize wintering costs. In our situation, automatic waterers were available in the drylot pens.
After about three to four hours of grazing, the cows were ready to get a drink and lie down, so they would walk into the drylot pens and we would shut the wire gate behind them. Next to the gate, we simply raised the electric fence so the calves could pass under it to graze.

In our experiment, another set of cows were wintered grazing tallgrass prairie stockpiled forage and fed about 5 lb . per day of dried distillers' grain with solubles. Calf weight averaged 467 lb . in mid-April in this
"traditional" system, whereas calves in the limit-grazed wheat pasture system averaged 565 lb . in mid-April.

## Western Region BY ZACH MCFARLANE

CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO
smcfarla@calpoly.edu
Quarter Circle U Ranch in Gold Canyon, Ariz., is owned by Mike and Amy Doyle, building on the legacy of Amy's father, Chuck Backus. Jordan Selchow, ranch manager of the Quarter Circle U Ranch in Gold Canyon, Ariz., has started to wrap up his fall works as he ships calves and cull cows.

Starting in December, this centralArizona ranch ships backgrounded calves to a feedyard in Gage, Okla. The Quarter Circle U Ranch retains ownership and capitalizes on valueadded marketing strategies to remain competitive in the cattle market. This is true of most of our producers in the Western region as they prepare cattle for video sales, the auction barn or other marketing avenues. Remaining competitive in the feeder
cattle market requires a focus on what makes your cattle different.
Selchow has also started thinking about selection of replacement females as the calving season approaches in December when they start the first round of artificial insemination (AI). He's learned how vital maintaining an appropriate protein and mineral supplementation regimen is for his herd. The goal is to maintain a positive plane of nutrition in his heifers and cows during breeding to ensure conception. Working with your county extension agent to sample forage, soil and water can give you a thorough understanding of any nutrient deficiencies or even toxicities.
Selchow has dealt with devastating wildfire on the ranch along with a severe 430 -day drought. With less than 20 inches of annual rainfall, this ranch must use strategic supplementation to survive and focus on managing the calving season to maximize the annual grass growth. The rest of the year, cattle must consume and utilize the strategic mineral and protein supplementation that Selchow employs.
Whenever I visit the ranch, I am always amazed an Angus-based herd can not only survive, but thrive in this harsh desert climate. This is due in large part to the fact that the Quarter Circle U Ranch focuses extensively on heifer selection and development. Selchow needs cattle with good feet and legs that can travel and adapt to this harsh climate. He also uses genetic selection tools like GeneMax ${ }^{\circledR}$ Advantage ${ }^{\mathrm{TM}}$ in combination with phenotypic characteristics to select high-quality females.

Focusing on dynamic problemsolving and decision-making helps
this Arizona rancher contend with the extreme ranch circumstances. With calving season approaching from March to May, Selchow is praying for rain and being critical on his heifer selection and development.
Ranchers learn lessons every single day, and I want to share these lessons with the readers of the Angus Journal. For me, it always pays to be a lifelong learner and recognize that everyone has a unique perspective and unique challenges. What we all share is a passion for the beef industry and the ranching lifestyle.
As always, be well and God bless the American rancher.

## Southern Region

## BY JASON DUGGIN

## UNIVERSITY OF GEORGIA

## jduggin@uga.edu

If there was a lesson to avoid learning the hard way, it would be a breeding season with poor, untested hay. If you haven't tested your hay, that approximate $\$ 30$ dollars for each lot of hay could be the most important investment of the year. The importance of a forage analysis cannot be overstated. A producer may feel confident their hay is "high" quality, but there is only one way to be sure the herd is getting sufficient fuel - test it.
If hay is the main forage during breeding season and either protein or energy are not meeting the recommended requirements below, we can plan on cows calving at least three weeks later the following year. The result could be 50 lb .-lighter calves at weaning time. We may also have 2 - and 3 -year-old females that don't breed back at all in a defined calving season.

However, with a forage analysis in hand, producers can know how much of a gap might exist and plan accordingly. The "UGA Basic Balancer" can be found online at www.ugabeef.com under the tools section to help assist in ration planning along with your Extension agent or nutritionist.
After calving, a cow's nutritional requirements will increase. Assuming a body condition score (BCS) of 5 for cows and 6 for heifers, visualize they will lose roughly one BCS, approximately 80 lb . of energy reserves. During the 50 days from calving to peak lactation, nutritional requirements will increase quickly.
Peak lactation requirements are $12 \%$ crude protein (CP) and $60 \%$ TDN (total digestible nutrients; energy). Cows in late lactation should be bred, but they still require $9-10 \%$ CP and $55 \%$ TDN. Dry cows' BCS should be monitored, particularly during the cold snaps to come. She is still pregnant and needs to provide essential nutrients to the calf in utero. Dry cows still need at least $7 \%$ crude protein and $50 \%$ TDN on a dry-matter basis. Please note the nutritional requirements will gradually increase until calving.

If we test a cutting of hay and the results are $8 \% \mathrm{CP}$ and $53 \%$ TDN, we now know that this hay is not sufficient through a breeding season. Look for additional sources of protein and energy to fill those gaps. Producers who look to fill these gaps should have improved conception rates, earlier calving dates and heavier weaning weights. The alternative can be harsh.
Remember protein supplementation alone will not overcome an TDN deficit.

One option may be commodity byproducts or blends. Corn gluten and soybean hulls are a go-to in some areas of the Southeast. Study the do's and don'ts of any byproducts used. Corn gluten exceeding recommended levels can be lethal.

In summary, a forage analysis may save your cows, your calf crops and the bottom line.

## Midwest Region

## BY ERIC BAILEY

UNIVERSITY OF MISSOURI
baileyeric@missouri.edu
How do we most efficiently use limited forage resources this winter, and how do we improve the usage of pasture in the future to help with drought?

## Reducing hay feeding waste

Use bale feeders to reduce hay waste. When large round bales are fed without a feeder, cattle have unrestricted access, leading to substantial waste. Bale feeders designed to restrict access and control hay consumption minimize wastage. Studies show using bale feeders can lead to notable hay savings. While the exact amount varies, it is possible to reduce waste from $40 \%$ of a bale to less than $10 \%$.

Feeder design: Feeders with solid bottoms and suitable heights prevent cattle from pulling out and trampling on hay. Cone-shaped or tapered feeders restrict access to hay, allowing only small amounts to be consumed at a time, reducing waste.

Feeder placement: Provide ample space to accommodate all animals without overcrowding, which can lead to trampling and wastage. Put enough rings out so no more than 10 cows stand around a feeder at one time.

Controlled feeding: Unrolling bales on pasture can reduce wastage. Feeding one day's worth of hay will reduce waste compared to putting out enough hay to last multiple days. Evaluating feeding frequency and adjusting can reduce losses due to bedding and fouling hay spilled outside feeders and encourage complete consumption.
Quality assessment: Regularly assessing hay quality is crucial. Poorquality hay may be less palatable, leading to wastage. Monitoring hay moisture levels prevents mold or bacterial growth, which can render hay unappetizing or unhealthy.
Hay storage: Storing hay in a dry, well-ventilated area, preferably on pallets or racks, prevents moisture absorption from the ground. Rainfall or snowmelt can be avoided by covering hay with tarps or storing it in barns.

Supplementary feeding: Assessing the nutritional requirements of the herd and considering appropriate feed or concentrate supplements can minimize hay wastage by ensuring cattle consume required nutrients without excessive reliance on hay.

## Monitoring and adjustment:

Regularly evaluating hay consumption and wastage rates allows for identification of areas for improvement. Feeding strategies can be adjusted based on observed patterns and feedback from the herd. Look at BCS change for 30 days to see if a feeding plan is working.

## Improving forage utilization

Try to increase forage utilization when grazing pasture, allowing you to graze longer and feed hay for fewer days next winter.
Rotational grazing: Implementing a rotational grazing system divides
pastures into smaller paddocks and rotates animals between them.

This reduces selective grazing, promotes even distribution and encourages uniform plant growth. It is possible to double the amount of pasture forage grown that ends up in a cow's mouth with a managed grazing system.

Rest and recovery periods: This is the key to rotational grazing systems. Allowing pastures adequate rest and recovery periods between grazing cycles promotes regrowth and replenishment of root reserves. Rest periods across Missouri depend on the season, but could be as short as 21 days in April and May to longer than 60 days between grazing events during this time of year.

Fencing and water infrastructure:
Making cows walk more than 1,000 feet to water may reduce grazing distribution and forage utilization in Missouri. Think about where water is in your pastures and if there is a simple, temporary fencing solution that could improve forage utilization.
Proper stocking rate: Matching the number of animals grazing a pasture to its carrying capacity is crucial. Overstocking leads to overgrazing, reduced forage availability and decreased utilization. Understocking results in underutilization of available forage. Regular monitoring and adjusting stocking rates based on pasture condition are vital.

## Monitoring and observation:

Regularly observing pasture condition, forage height, species composition, and signs of overgrazing or underutilization allow for adjustments in grazing practices. This ensures optimal forage utilization and pasture health.

