

eon Kreisler admits he was skeptical when he attended his first grazing school back in 1991.

What the Salem, Mo., cattleman learned, though, would help him chart a new course for his commercial-Angus cow-calf operation by extending his grazing season to nearly year-round and cutting feed costs.

"After trying it," Kreisler says of rotational grazing, "I could see right away that it does work."

Kreisler believes so much in using rotational and strip-grazing in his farming

► Above: Commercial Angus producers Leon and Helen Kreisler have been able to extend their grazing season by implementing rotational and strip-grazing techniques on their south-central Missouri farm.

operation that he's been able to switch to strictly a fall-calving herd.

"The most costly time with a cow-calf operation is with winter feed," Kreisler explains. "So, anything you can do to reduce that really affects your bottom line."

Using stockpiled fescue pastures that have been interseeded with clover and lespedeza, Kreisler strip-grazes the grass, rotating the cows to fresh pasture every one to two days — depending on the season — all year long.

According to Mark Kennedy, former Natural Resources Conservation Service (NRCS) state grazinglands specialist and owner of Kennedy Grassland Services, stripgrazing allows you to get the most out of your forage by reducing waste and improving utilization. "Studies in Missouri have shown that strip-grazing improves utilization from 35%, when livestock are given a two-week allocation of forage, to 70%, when the forage allotment is less than three days," he explains.

This further stretches forage supplies and gives 40% more grazing days per acre, he says. Plus, it helps maintain forage quality.

"When livestock are given a whole field, a lot of plant tissue is damaged as the cattle walk around on it," Kennedy notes. "As plant tissue is damaged, forage quality begins to deteriorate more rapidly. With strip-grazing, you only give access to one to three days' worth of forage, thus protecting the rest of the field and maintaining forage quality."

Kreisler adds, "Strip-grazing is the one thing that affects my bottom line the most, and it doesn't take hardly any investment at all to do that."

#### **Economic sense**

Profitability is the key to survival of any business, and Auburn University Agronomy Professor Don Ball maintains every day grazed is money saved. "Reducing the need for stored feed is the key," he says.

According to University of Missouri State Forage Extension Specialist Rob Kallenbach, "The reason we want to extend the grazing season is because we can feed animals for about half as much per day on pasture [as] we can with other feed sources."

Kallenbach admits it does take some management and planning to accomplish extended grazing.

"Stockpiling tall fescue is a way to extend the grazing season," he notes. Late summer fertilization with nitrogen will aid in autumn grass growth. "When we grow more grass in autumn, we can use that stockpiled forage longer."

Also a believer in autumn fertilization, Kreisler toward the end of August sets aside paddocks that won't be used in his grazing rotation. He wants the grass in those pastures 3 to 4 inches (in.) tall before spreading nitrogen fertilizer on them. Application is based on available grass going into the fall season.

"The main mistake some people make is that they think they can take a forage from early spring to about knee-high," Kreisler





► Left: Stockpiled tall fescue is one way to help cattlemen extend the grazing season and reduce the need for stored feed.

# Nine tips for extending your grazing season

Extending the grazing season can put you on the path to using less stored feed and to adding more money in your pocket. Former Missouri State Grazinglands Specialist Mark Kennedy outlines nine strategies to give you a jump in getting more out of your grass.

 Use proper stocking rates. For every cow that you're overstocked, you have to provide about 13,000 pounds (lb.) of forage from outside sources, Kennedy says.

2) Utilize pastures more efficiently through improved grazing management. As pastures are subdivided into smaller units and grazed for shorter periods of time with the same number of livestock, Kennedy says spot-grazing decreases and utilization increases.

"Typically, with a four-pasture rotational-grazing system where livestock are moved every seven to 10 days, utilization is 35%," he says. "With a 12-pasture system where livestock will be moved every two to four days, utilization of pasture should be around 65%."

- 3) Utilize legumes to extend the grazing season into the summer. "Legumes continue active growth longer into the summer than their companion cool-season grasses," Kennedy says. Legumes also provide free nitrogen fertilizer for companion grasses.
- 4) Add warm-season grasses to the forage base. According to Kennedy, cool-season grasses dominate most Midwest livestock farms. "Cool-season grasses typically produce 60% of their growth in the spring, 30% in the fall and 10% in the summer if moisture is adequate and temperatures aren't extreme."

He adds that warm-season grasses provide optimum growth with temperatures from 85° to 100° F and they provide active growth from mid-May until frost in the fall.

- 5) Stockpile tall fescue for winter grazing. Utilizing stockpiled fescue is the cheapest winter feed we have available, Kennedy says. "Typically, feeding stockpiled tall fescue by strip-grazing it will cost one-third to one-half as much as feeding hay and the quality is just as good or better."
- 6) Remember winter annual forages will provide high-quality winter feed at a cost lower than hay or silage. In a study at the Forage Systems Research Center in Linneus, Mo., it cost \$172 per cow to winter on hay for 130 days; \$108 to utilize winter annuals for 90 days and hay for 40 days; and \$70 per cow to utilize stockpiled fescue for 90 days and hay for 40 days. While winter annuals cost more than stockpiled fescue because of seed and machinery expense, Kennedy says they are still cheaper than hay.
- 7) Graze crop residues. This is an option for some livestock producers in the Midwest. Kennedy notes that a field that produces 120 bushels (bu.) per acre of corn will contain 3-4 tons of roughage dry matter per acre.

"Beef cattle will normally consume 30% to 40% of the crop residue providing an additional 65 to 110 days of grazing," he explains. Depending on the cow's physiological stage, he adds, supplemental feed may be needed to meet the nutritional needs of the cow, especially if she is lactating.

- 8) Graze dormant alfalfa and other hayfields. It is recommended to allow growth to accumulate in alfalfa and other hayfields for six weeks before the first killing frost. Once cold weather has ensured dormancy, Kennedy says the accumulated growth can be grazed safely for livestock. Plus, he adds, grazing dormant alfalfa tends to reduce the alfalfa weevil population the next spring.
- 9) Graze dormant warm-season grasses. Studies in Oklahoma and Arkansas have shown that stockpiled Bermuda grass will maintain crude-protein levels of 10% if grazed by the end of December, Kennedy explains. "Missouri data has shown crudeprotein levels of 7% to 9% with total digestible nutrient (TDN) values of 55% to 60% on grazed dormant native warm-season grasses if grazed by the end of December."

explains. "That does not make good stockpiled grass for winter time."

Kreisler says in order to get good fall growth, he will clip his pastures to that 3- to 4-in. mark, if needed, before fertilizing. "It really affects the quality of your forage."

He estimates the practice allows him to grow forage at about half the cost of what it is for hay.

"You can almost double the amount of feed that you have just in management without having to grow any more than what you already have," Kallenbach states.

Kallenbach says research during the last 10 years has proved autumn fertilization of tall fescue pastures for stockpiling has been a good payback. "It's been the cheapest feed that we've been able to put animals on over the course of winter, if we do a good job of managing the pasture we're grazing," he says. "That's typically saved us about \$50 per cow per year."

## **Quality feed**

Along with the economics of grazing comes its nutritional value.

According to Kennedy, grazed forages are higher in quality than stored feed. "Based on forage tests, the average quality of stored hay in Missouri is 10% crude protein (CP) and 60% total digestible nutrients (TDN)."

Although fall-grown stockpiled tall fescue typically peaks at more than 20% CP and 70% TDN, by the end of March or early April, Kennedy says the forage is still as good as hay in the barn.

Kreisler agrees. As a participant in a Texas A&M University study on fecal samples, he discovered that the protein content in stockpiled fescue drops about 2% per month from the first of October through the first of May. At the end of the winter season, he says,

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his pastures were at 10%-12% protein.

"I know that my forage will meet the needs of my fall-calving cows throughout the winter," Kreisler says. While the winter of 2013-2014 brought exceptionally cold days to southern Missouri, Kreisler says he provided extra supplementation for his cows to help meet their energy requirement.

"When you are coming out of the winter with a springcalving herd, that's generally the time when the cows are in

their poorest condition," he notes. "It's harder to get them to breed back."

Grazing stockpiled fescue in the fall gets Kreisler's cows in shape for rebreeding and helps him achieve a tighter calving window, he says.

Ball says tall fescue is the easiest forage specie to stockpile, as it yields quality growth. "Strip-grazing gives good utilization and the fescue holds its quality well," he says.

When it comes to meeting the nutritional needs of the animal, nothing beats testing, whether using hay or pasture, Kallenbach notes. "As with all pasture- and forage-management options, whenever you try to implement a practice on the farm, take a look at how much it would cost you if you were to go buy feed to accomplish the same goals."

Sorting animals based on nutritional



requirements can help you best match grazing and livestock needs, Kennedy suggests. "Utilize the lower-quality feeds with lower-nutritional-requiring animals such as dry cows. The higher-quality forages could be used for lactating cows or growing animals."

## **Another option**

While stockpiled forage is a clear choice for extending the grazing season, cover crops like cereal rye and wheat are another option.

Kallenbach says often these small grains are planted after traditional row crops like corn and soybeans.

"Those cover crops are actually quite good feed for livestock," he notes. "If we think of those in a strategic way, we can use them to extend the grazing season even though we might not consider those pasture acres part of the forage system."

Brassicas like turnips and forage radishes are short-term crops that, with the right growing conditions, are hard to beat, Kallenbach says. "They can produce between two and three times the amount of dry matter per acre for grazing [compared to other forages]."

#### **Pennies earned**

With cow-calf producers positioned to make valuable profits in the near term, Ball

maintains there is big opportunity to make money in the cow business. "But, we have to grow good-quality forage," he says.

Planned flexibility is key to success in extending the grazing season.

"Walk your pastures. Look at what you have," Kallenbach advises. "Notice when you have overgrazed, and when it's time to turn stock into a pasture."

He says giving pastures a weekly look will help determine where adjustments need to be made in your forage program.

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While some might shy from the reality of year-round grazing, Kennedy assures it is possible to achieve with planning and management.

A good, well-balanced forage system of 70%-85% cool-season grass and legume pastures with 15%-30% warm-season grass pastures will go a long way toward reducing the need for stored forages, Kennedy says.

Extended grazing can be achieved by utilizing the forage you produce as efficiently as possible through management-intensive grazing and strip-grazing. Kennedy says, "Forage utilization can double by going from two-week allocations of pasture to three days or less."

Still, pennies are difficult to earn when pastures are overstocked.

"Every farm can only produce a certain amount of forage," Kennedy explains. "If you're overstocked, you will never be able to extend grazing and reduce the need for stored feeds."

**Editor's Note:** Joann Pipkin is a cattlewoman and freelance writer from Republic, Mo.

