Stay in the Game!

Managing forage plans is just as important during the fall and winter as it is throughout the summer growing season.

by ***Kindra Gordon***

Fall is a time for back to school, football games and shorter days as the sun sets a little earlier each evening. For cattle producers, it also might feel like a time to ease up on the summer grazing schedule. But, if you are spending more time planning your fantasy football league than you are monitoring your fall and winter forage management, you are making a big fumble — and that could affect the productivity and resilience of your pastures for next spring and summer.

Here, forage and nutrition experts offer advice on how to tackle fall and winter forage management, as well as design a game plan to determine if — and what — supplementation is needed.

Access resources

Just as a coach would evaluate the fitness status and skill levels of players on his team, fall is a good time to assess forage and pasture resources. Management decisions will be based on that inventory. Obviously, in areas challenged with drought conditions, limited forage resources may require producers to consider early weaning, to reduce herd size or to offer supplemental feed. Meanwhile, the spring and summer of 2019 for many areas across the Northern and Central Plains have been the opposite of drought — with ample, if not excess, rainfall.

While the rain, storms and flooding in some areas has been troublesome, it has produced a bumper crop of forage in pastures and hayfields.

In South Dakota, Range Management Specialist Emily Helms with the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) reports, "The entire state is in the 'green' according to the SD NRCS Drought Tool."

How should this extra forage be handled going into fall? Helms advises if livestock numbers were not adjusted during the summer in order to utilize the extra forage, then producers have a few fall options to consider.

Continuing to graze until "you're outta grass" is one option. If that is the plan, Helms suggests making sure grass is allowed adequate regrowth prior to a hard freeze in order to promote good root regrowth. This is important as it allows the plant to store root reserves for going into winter. Appropriate stubble heights and regrowth heights for each grass species vary, so Helms says, "It's best to talk to a range management specialist in order to determine adequate heights to keep your forage in tip-top shape going into the winter." USDA NRCS or land-grant university extension specialists can assist with range management information.

Leaving the extra grass to "feed the bugs" — more specifically the soil microbes underground is another option. "Leaving this year's extra forage to help replenish the ground cover will promote good soil biological activity," Helms explains. "In some areas where rain and forage have been sparse in the past few years, a little extra forage leftover going into the fall will help grasslands rebuild their resiliency and allow them to recover after being hit hard year after year."

She also offers advice when considering fall, winter or dormant season grazing for areas that have had adequate rain over the past few years. "Grazing plants after they have become dormant is a valid option, but supplementation may be needed, especially on introduced cool season grasses," Helms explains. "These may need additional protein supplementation."

To assess specific supplementation needs, she recommends visiting with a livestock nutritionist to make sure livestock are getting the best quality diet possible for their stage in production. Additionally, Helms emphasizes when using dormant season

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grazing, the maximum recommended utilization is 60% of leaf material.

She notes, "Even though the plant is dormant, it can still be overgrazed." The leftover plant residue will help catch snow, provide erosion control and provide cover over the winter for wildlife and may also provide nesting cover in the spring, depending on the species of grass being utilized.

And, what about hayfields? Helms says fall management of these resources should be handled similarly to those of grazed pastures — allowing adequate forage regrowth to occur prior to a killing frost. Depending on the forage species of the hayfield, these heights can range from six to 10 inches. These heights are recommended in order to maximize the lifespan of a forage planting, to ensure good spring growth and to limit winter injury.

Making the most

As a forage management game plan comes together for fall and winter, another winning strategy to consider is utilizing crop residue to extend the grazing season. Seasoned range managers point out alternative sources of forage like crop residue — such as corn stalks, soybean residues or even cover crops — provide great sources of nutrient rich feed for livestock, while also giving summer pastures a longer rest period than they would normally have.

Many states are now creating websites or Facebook pages to help link crop producers with available crop residues to livestock producers seeking grazing opportunities. In Nebraska, *CropResidueExchange.unl.edu* is one such site. This site also includes a page where cover crops available for grazing can be listed. South Dakota and Minnesota offer similar sites at *SDGrazingExchange.com* and *MDA.State.MN.US/Cropland-Gazing-Exchange-1.*

And, for landowners who may be concerned about possible negative effects to the next crop from grazing, University of Nebraska at Lincoln (UNL) research has shown there is no need to worry. In fact, UNL research showed when corn residue was grazed at proper stocking rates, 15% residue removal, crop production after grazing was not reduced. In fact, grazing corn residue produced small increases to the following year's soybean yield.

Another option is to select a sacrifice pasture. Most producers already have a "winter pasture" where cattle are held after the snow flies or the rainy season begins. This is usually close to the farmstead or some type of barn shelter so cattle can be reached and given supplemental feed during inclement weather.

It is important to stockpile this "sacrifice" area during the growing season so when livestock are moved here from midwinter through spring, there is some forage available. Livestock experts advise storing hay bales close to these areas, so they provide additional wind protection and access to feed even in the worst winter blizzard. And, once spring green-up occurs and cattle can be moved to other pastures, allow this sacrifice area to rest and to regrow until the next winter season.

Keep an eye on body condition

As the seasons move from fall to winter, it is important to watch forage resources, but it is equally important to monitor if cows are maintaining adequate body condition. This will dictate if supplementation is necessary.

Lance Kennington, a beef cattle nutritionist for CHS based in Sioux Falls, S.D., suggests several supplementation strategies to evaluate. Specifically, as supplementing is considered, producers should ask two key questions: What is the forage? What am I trying to do?

He advocates using forage analysis and explains it is important to avoid over or under feeding nutrients and to know digestibility.

As an example, he points to wheat baled for hay during a drought instead of being combined. But he cautions, "That is wheat straw that is going to go right through the animal. The energy on it is OK, but not the digestibility."

To this point, Kennington notes nutrient content and digestibility both affect animal intake. He emphasizes, "If a cow — or calf — eats 10% less than they are supposed to it can take an animal from a gain situation to less than maintenance. Intake is that critical."

Thus, he underscores forage analysis will guide supplementation decisions. Most important is protein, which he explains is the first limiting nutrient for beef cattle. "It's required to get rumen digestibility," he shares, and adds, "If the rumen doesn't get protein, it doesn't work well."

Kennington says manure can be a good indicator of the animal's protein intake. If the cowpie is "stacking," that indicates low protein at or below 6% in the diet, and he suggests protein supplementation. As a side note, if manure is extremely loose, especially in a drought year, it could be an indicator of high sulfate water.

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>
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Because protein content naturally decreases in pasture grasses in late summer and going into fall, Kennington cautions cows may begin to lose body condition and may need protein supplementation through cake or liquid feeds.

Kennington says the minimum is typically a diet with about 8% crude protein to maintain feed intake and rumen function of lower quality feedstuffs. At this level the cow should continue to consume about 2% of her body weight.

He reiterates, "Protein level of the diet does affect energy intake," and notes this in turn affects body condition and can also influence calving success, pregnancy rate, calving interval and calf weaning weights. He adds, "If you get cows thin, those things are affected and likely decreased."

Kennington also says, "Fetal programming is a real thing. The fetus is affected as an adult." He shares one study found the reproductive performance of heifers that were supplemented as a fetus compared to those that were not showed differences in pregnancy rate, and calving difficulty were lower among those heifers that came from cows that were supplemented during pregnancy.

Of this he says, "Don't let the cows run short on too much because you're going to affect long-term the heifers coming back into your herd."

Review the objectives

As a supplementation program is considered, Kennington reminds producers to review objectives. These often include minimizing the negative impact on the forage resource, keeping productive cows in the herd and maintaining profitability. "You've got to think about next year and the next and what you need to do to stay in business," he says.

In situations where the quantity of forage is lacking either due to drought, overgrazing or a lack of hay, Kennington says, "If you are short of forage and trying to stretch, you need to feed protein." He notes eight pounds of a cake cube can be equivalent to supplementing 16 pounds of hay.

In situations where there is an adequate quantity of forage, but it is low quality — such as low-quality hay, crop aftermath or low-quality pasture forages — protein tubs or forage range cube products can work well.

Kennington circles back to his initial point and says, "Forage sampling is very important to make proper recommendations and help you determine what level of protein supplementation you need. Is it 20% cake or a 30% tub?"

To this, he also advises grouping the cow herd for winter feeding by age and nutritional needs. For example, one herd of replacement heifers, one herd of first calf heifers and thin older cows, and one herd of mature cows in good condition. "Grouping is a good idea, especially in a drought year, because they do have different nutritional nutrient requirements," Kennington says.

Regarding calves, Kennington notes early weaning can be a tool to help save pastures and cow condition. He says, "The calf eats quite a bit of forage, so you may need to get the calf weaned and give the cow a break." That said, he prefers not to early wean if calves are less than 300 pounds.

As a final point, Kennington says weaning calves can also lower the cow's water requirements, which is important if water is an issue in pastures. He advises all producers to carry a water meter to test their total dissolved solids (TDS) levels. Kennington underscores bad water, which can occur in both dams and well water, can affect calf health. "I've seen calves sick all winter at the feedlot because of bad water." HW

Avoid this grazing mistake

Often, once fall arrives, a temptation is to "open the gates" and to "let the livestock have the run of the pastures." But range managers agree this is one of the most costly mistakes that can be made.

Why? Grazing down residual forage — below 4 inches — tends to damage the root reserves which contribute to the next year's plant growth. Removing the forage residual that helps cover the soil reduces the protection of the soil microbes, and roots, from fluctuating temperatures, which can also affect the plant's future productivity.

Leaving the extra plant residue in place is also important in helping to catch fall and winter moisture and allowing it to infiltrate the soil instead of running off.

The bottom line: where possible, allow pastures to rest in the fall so they can regrow and be ready for another grazing season come spring. HW