



# Ridin' Herd

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## What if the drought continues?

Hopefully, spring turnout is just around the corner. With the lack of moisture during the fall of 2012, forage production this spring will be limited — even if pastures receive some spring moisture. There is another possible management strategy — replacing pasture forage with other feed sources — that producers might consider if there is some pasture available for cattle to graze and the goal of the operation is to limit the number of cows that have to be liquidated.

### Replacing pasture forage

While cows grazing spring and summer pastures are supplemented salt and minerals, there is usually very little interest among producers in feeding cows another feed while they are grazing pasture. The substitution concept means that a portion of the grazed forage will be replaced by another feedstuff.

The theory for this concept is that the rumen has a certain capacity. Once filled, cattle will stop eating. Through

substitution, part of the rumen will be filled with a feedstuff other than forage from the pasture.

For this management strategy to be accomplished, labor to deliver the feed needs to be available, it must be cost-effective, and there must be feeds available that don't have a negative effect on forage digestion. In addition, this management strategy cannot have a detrimental effect on pasture longevity and sustainability.

Harvested forages such as alfalfa, grass hay and summer annuals could be fed in a grazing situation to replace grazed forage and not have a negative impact on digestibility of the diet. The rumen microbes that digest the harvested forage also digest the grazed forage. The challenge when using harvested forages to replace the forage consumed by grazing is to get the cattle to consume the harvested forage.

In a free-choice situation where cattle have access to harvested forage and pasture, cows likely will choose the

pasture. Common sense says not until the pasture is limiting will they begin to eat the harvested forage. This may have a detrimental effect on the health and longevity of the pasture. If daily access were provided to a loafing area where the cattle could be gathered and fed the harvested forage, then consumption of the harvested forage may be possible.

Grains such as corn are not a good choice as a feed in most grazing situations. Data suggest that grains have a negative associative effect on forage digestion. Grains are high in starch, and feeds that are high in starch tend to lower the pH of the rumen and make it an acid environment. The consequence of this is a decrease in forage digestibility.

Byproducts when included in forage diets have no known negative effect on the forage portion of the diet. In a study, cow-calf pairs grazing smooth bromegrass pasture were unsupplemented or supplemented a 35:65 Synergy:straw mixture. Synergy is a byproduct that is 60% modified distillers' grains and 40% wet corn gluten. Grazed forage intake was replaced about 50% with supplementation with no differences in cow performance ([http://beef.unl.edu/c/document\\_library/get\\_file?uuid=1d3078fa-42e3-460e-bdeb-befddf6a15bc&groupId=4178167&.pdf](http://beef.unl.edu/c/document_library/get_file?uuid=1d3078fa-42e3-460e-bdeb-befddf6a15bc&groupId=4178167&.pdf)).

In another study, a 30:70 mixture on a dry-matter (DM) basis of wet distillers' grain and straw was fed to pairs grazing bromegrass pastures. For each pound (lb.) of the distillers'-straw combination consumed, 0.5-1.0 lb. of pasture forage was replaced on a DM basis. For planning purposes, expect a replacement rate of 0.6-0.7 lb. of grazed forage replaced per 1 lb. of feed combination consumed on a DM basis if the feed is similar to the ones reported in the studies mentioned above.

The replacement feed must be palatable and have some "bulk" to make this strategy work. Just feeding a feed like distillers' grains will not result in a substitution effect. If the feed is fed in a bunk, consider moving the bunk occasionally to avoid erosion around the bunk.

### Forage feeding losses

Forage feeding losses can be substantial. When forages are expensive, strategies to reduce feeding losses seem to be more important to consider. Strategies to reduce feeding losses usually require some investment in equipment. These costs need to be balanced with expected savings.

The "Hay Ring Waste Calculator" is available at [www.noble.org/ag/tools/livestock/hay-ring/](http://www.noble.org/ag/tools/livestock/hay-ring/). Depending on the type of feeder, the forage feeding loss ranges from 5.3% to 21%. The calculator will calculate the amount of waste and the cost of the wasted hay. The tool may help you make an informed decision on the cost/savings when implementing a strategy to reduce forage feeding losses.

Allowing cattle unrestricted access to hay bales results in about 20% hay waste compared to using some sort of feeder. With the development of bale beds for pickups, many producers began unrolling hay to spread nutrients around pastures and minimize feeding area damage. Hay unrolling has resulted in 10%-15% greater waste compared to using ring feeders.

Hay waste is minimized in unrolling systems by unrolling only what cattle will consume in one day. This is critical, and feeding losses are usually less than 10%. Unrolling only what is needed is easier in larger herds or management groups matched to bale weight because extra hay is a smaller percent of the total hay offered. For smaller-scale operations, the largest challenge with unrolling hay is the daily feeding requirement to minimize waste.

When comparing feeders, all alternative feeders are based around a modification of the standard bale ring with an open bottom. These feeders typically have 16-18 feeding stations and are lightweight to allow placing over the bale by hand. Feeders with less defined feeding stations, such as those with fewer bars, allow boss cows to dominate areas of the feeder. Because of increased head movement, hay waste also increases.

### Final thoughts

Replacing grazed forage with another feedstuff while cows are on pasture may be an alternative to consider. In large-scale cow-calf operations, this concept may not be feasible. Consider how you might reduce forage feeding losses. Reducing feeding losses doesn't necessarily mean buying a bale feeder; it may take some adjustment in how the hay is delivered and how much is delivered on a daily basis.



**Editor's Note:** "Ridin' Herd" is a monthly column written by Rick Rasby, professor of animal science at the University of Nebraska. The column focuses on beef nutrition and its effects on performance and profitability.