Do You Have Enough Forage? cont'd

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When determining daily forage requirements, it is also important to account for the types of feeders being used. On some farms, the bale size, feeders and herd size, will likely result in cattle being able to eat somewhat more than they need, but it might cost more to change feeding equipment or limit the amount delivered than let them eat a little extra. Limiting the time they have access to the feeder may an option to manage their intake to help stretch forage supplies as long as they are able to consume what they need. Research at the University of Illinois observed that allowing cows access between 6 and 9 hours per day was adequate time for cattle to eat all they wanted, as long as all cattle could access the feed at the same time. Some producers allow animals to have access to all the forages they can eat 24 hours a day. This still may not meet cattle needs, or it could greatly exceed them depending on forage quality and animal nutritional needs. Free-choice feeding may not be the most efficient use of feed resources.

Step Three: Determine total forage needs.

Once the daily forage requirements per head for the various rations have been determined, multiply that by the number of head being fed the ration and number of days the ration is fed to get a total demand for each forage source. It is also important to factor in storage and feeding losses, referred to as shrink. The spreadsheet tool calculates shrink based on user input information. Some forage storage and feeding methods losses can be very high and there may be opportunities for producers to improve forage efficiency by improving storage and feeding losses. To the right are some tables with examples of dry matter losses from storage and feeding.

Step 4: Compare inventory to needs to identify surpluses, shortages, or the need to change rations

Once forage inventory and needs have been determined, the next step is to determine if supplies are adequate, or if additional forages need to be harvested or purchased to make it through the winter. Adjust the rations to account for shortages of certain forages and surplus of others, or trade surplus forages for needed forages depending on prices and availability in each situation. Completing this task early will provide more options and greater flexibility for producers than waiting to compete with others who are feeding the last of their inventories.

It is time well spent to inventory your forages, plan rations and allocate your forage inventory to most efficiently and economically meet your herd's needs. Download the calculator and take steps to meet the forage needs of your herd.

Table 1. Effect of Storage Method on Dry Matter Loss of Big Round Bales

Storage Method	Range of Dry
Under roof	2-10
Plastic wrap, on ground	4-7
Bale sleeve, on ground	4-8
Covered, rock pad or elevated	2-17
Uncovered, rock pad or elevated	3-46
Uncovered, on ground, net wrap	6-25
Covered, on ground	4-46
Uncovered, on ground	5-61

Table 2. Effect of Hay Feeding Loss by Feeder Type

Type of Feeder	Percent Hay Loss (%)
Ring without panel	20
Cradle feeder	15
Feeder wagon	11.5
Ring with panel	6
Cone feeder with panel	3

Table 3. Effect of Storage Method on Silage Dry Matter Loss at Recommended Moistures

Storage Type	Dry Matter Loss (%)
Top unloading tower	11-19
Oxygen limiting tower	6-13
Pile or bunker, covered	18-34
Bags	9-14