

Do You Have Enough Forage? Four Steps to Figure Forage Inventory

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Now is the time, before the snow flies, to take inventory of your farm's forage supply and determine how well it meets the herd's needs. Knowing your feed inventory and needs early allows you to purchase now, rather than wait to purchase during the winter when forages are usually priced higher. Or worse yet, trying to find feed when you are down to the last days' worth of feed.

The process we outline in this article is intended to best allocate forage inventory to differing animal nutritional requirements based on animal age groups and their changing nutritional needs over the winter-feeding season. This process should help keep feed costs as economical as possible. This can be accomplished by figuring with a pencil and paper, or to make this process easier, the UW Madison Division of Extension Livestock Program has a new spreadsheet tool available. The Forage Inventory and Needs Calculator is a new free spreadsheet that does many of the calculations for the user based on their inputs. It is available at UW Madison Division of Extension Livestock Program website <https://livestock.extension.wisc.edu/> in the Decision Tools and Software Section. This tool is designed to help determine both the total harvested forage inventory and herd forage needs. It is not designed to balance rations. If you are not comfortable balancing rations, we strongly recommend working with a reputable nutritionist to formulate balanced ration(s) for your herd's needs.

Step One: Inventory all forages available. This should include quantity and quality measurements. Separate the baled forage inventory into groups with similar quality (i.e. 1st cutting vs. 2nd, rained on vs. not, alfalfa grass vs. road ditch hay) rather than lumping everything together. The goal is to match your forage resources to your herd's differing nutritional needs, while reducing the need to purchase feed. Use reasonable accuracy when determining weight of forages. The estimates and end results are only as accurate as the information you use.

For baled inventory quantity, do not base bale weights on book values, bale dimensions or manufacturers' baler settings. Real world variations exist depending on the baler, baler operator and type of hay. Weigh a few bales (dry hay or wrapped baleage) to get a reasonable bale weight for each specific batch and cutting. There

are a number of ways this can be done with on farm scales or taking a load to a scale at a feed mill or gravel pit. If weighing a truck or trailer load, make sure you have an accurate empty weight too. Then multiply this average weight by the number of bales in the batch to get a total weight for each baled forage type.

For ensiled feeds stored in bags, various silo types or piles, weighing some typical chopper box loads will provide a reasonable average weight. This means two trips over the scale: full – empty = weight of as-fed forage. Count loads placed into the storage structures to get a reasonable total weight estimate. It will be necessary to take into account fermentation and storage shrink if tracking weights of silage being put into storage to get a reasonable estimate of available feed. If it is not possible to weigh and count loads, dimensions of the storage structures (bags, tower silos, piles etc.) and either charts with weight estimates, or calculators included in the Forage Inventory and Needs Calculator can be used to estimate amount of forage in silage structures. Using the calculators with your actual measured density and moisture content will increase accuracy of the weight estimate in storage.

Forage test every forage source so balanced rations can be formulated. Prioritize forages for the production stages where they best fit.

Step Two: Determine daily forage requirements of each group of animals in the herd.

In addition to prioritizing your various quality forage resources to the different nutritional needs of the herd during the winter-feeding season, this step also determines daily forage needs for animals throughout the winter-feeding season. When working with rations, it is important to keep in mind the cows' changing needs during gestation and after calving, and the growing animals' needs increasing as they get larger.

Each animal group (mature cows, young cows, replacement heifers, bulls, weaned calves, etc.) should have balanced rations formulated for them. Some groups may need more than one ration, for example, as the cow herd enters different stages of gestation, their nutritional requirements change. In some cases, rations may be as simple as determining which forage inventory group meets their needs, for a given period, along with what mineral supplement may be needed.

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