



## **Wet Weather and Hay Quality**

*By John McGregor, MFGA Extension Support*

By following the Manitoba Agriculture weekly crop reports this year, it gave me a good indication of just how tough it's been stringing together a few days of sunny, dry conditions to put up dry hay. This type of weather makes it near impossible to get good quality hay off the fields.

Farmers who cut hay at the right time were frustrated with the rain that fell right after the cut. One of the worst things that can happen to hay is to get rained on just when it's almost dry. That's when you start losing feed quality - a lot of your soluble sugars are washed out and you start getting brown turning to black hay.

Producers who waited out the rains before cutting also ran into problems. Waiting can cause the quality of the hay to decline because it's maturing. Proteins drop, fibre increases, and carbohydrates/ sugars drop. This leaves hay with less energy and less protein in it. So even though it was standing, and you got it off dry, it's not necessarily going to be great feed.

Although it is always a good practice, this is an especially good year to have your forages tested. Test results provide quick feedback as to how successful you were in making quality hay. Many times the weather and other uncontrollable factors (equipment breakdowns, etc.) spoil the best intentions. Forage testing indicates how far from the goal the hay quality is and provides some perspective on how much rain or maturity impacted forage quality.

Estimating the forage requirements of cows is an important part of the task of calculating winter feed needs. Correctly matching hay and cow needs is the most efficient and least costly method of feeding cows through the winter.

Forage quality will be a determining factor in the amount of forage consumed. Higher-quality forages contain larger concentrations of important nutrients so animals consuming these forages should be more likely to meet their nutrient needs from the forages. Also cows can consume a larger quantity of higher quality forages. Testing your forages and then supplementing as needed is where feed testing and ration balancing will certainly pay this year. Without forage analysis, additional feed may be provided needlessly.

When estimating forage requirements you need to remember that higher quality forages ferment more rapidly in the rumen leaving a void that the animal can refill with additional forage. Consequently, forage intake increases. For example, low-quality forages (below about 6% crude protein) will be consumed at about 1.5% of body weight (on a dry matter basis) per day. Higher-quality grass hays (above 8% crude protein) may be consumed at about 2.0% of body weight. Excellent forages, such as good alfalfa, silages, or green pasture may be consumed at the rate of 2.5% dry matter of body weight per day. The combination of increased nutrient content and increased forage intake makes high quality forage very valuable to the animal and the producer. With these intake estimates, now producers can calculate the estimated amounts of hay that need to be available.

Using an example of a 1,200-lb. pregnant spring-calving cow, let's assume that the grass hay quality is good and tested 8% crude protein. Cows will voluntarily consume 2.0% of body weight or 24 lbs/day. The 24 lbs. is based on 100% dry matter. Grass hays will often be 7-10% moisture. If we assume that the hay is 92% dry matter or 8% moisture, then the cows will consume about 26 lbs./day on an 'as-fed basis.'

We also have to consider hay wastage when feeding round bales. Hay wastage is difficult to estimate, but generally has been found to be from 6% to 20% (or more). For this example, let's assume 15%. This means that approximately 30 lbs. of grass hay must be hauled to the pasture for each cow each day that hay is expected to be the primary ingredient in the diet.

If you are considering testing your forages this fall, many times your local feed representative will have the equipment to take the samples for you. You can also go to your local Manitoba Ag office. Last year I checked and nearly all of the offices have forage probes you can borrow. Once you have your results, many of the livestock staff can help you with ration balancing and making the best use of the hay supplies you have on hand.