Winter Feed Supply

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With at least four months of winter still ahead, you need a strategy to manage your feed and cattle so that you get the best out of both. This strategy begins by knowing the nutritional value of the various feeds you have available. The two (main) purposes of hay testing are to formulate rations and determine economic worth. Testing your feed and knowing its value allows you to feed the right plane of nutrition so as to avoid future issues and maximize its economical value.

The basic components evaluated in a feed test are dry matter or percent moisture, crude protein, an estimate of energy such as total digestible nutrients (TDN) or some measure of net energy (NEm or NEg) and minerals like calcium and phosphorous.

Including some additional analysis in your feed test can provide insight into the quality or help predict how an animal will perform on that feed. The forage test could include acid detergent fiber (ADF) and neutral detergent fibre (NDF) analysis.

NDF reflects the amount of cell wall content in the sample and the bulkiness of the forage and may help estimate the expected dry matter intake. ADF represents the amount of cellulose and lignin within the forage and is correlated with the respective digestibility of the forage. In general, a higher ADF value is associated with a greater proportion of cellulose and lignin and would likely be more mature. The ADF fraction is used to calculate the energy estimates of TDN, NEm, and NEg that appear on the report.

Most laboratories have a number of different analysis packages which encompass the most common procedures or numbers that a nutritionist or producer needs to know about their feeds. These packages will typically include the basic procedures (DM, CP, and TDN) and then add on specific analyses such NDF, or the macro minerals (Ca, P, Mg, K, Na, Cl, and S). Some laboratories may group analysis packages by the type of sample (forage vs. mixed ration) or production purposes (dairy vs. beef). Your nutritionist and/or some of the Mb Ag staff can assist you with balancing your rations.

Once you have your feed test, it's time to set out your feeding strategy. Cows need more and better-quality feed as pregnancy progresses. Presently, most cowherds are in their 2nd trimester of pregnancy and a cow's needs are quite different in her 1st, 2nd and 3rd trimester of gestation. Cows in their 1st trimester that came off pasture with a body condition score of 3 or less will require more feed to stay warm through the winter and to grow a healthy calf. Cows moving into the 2nd trimester, if they are in good condition, require just enough feed to maintain body weight. Once again, cows in poor condition

will need to be fed separately, possibly with first calf heifers so that they gain weight and condition.

As a cow gets closer to calving - 3rd trimester - producers should start to supplement the cow's diet with an alfalfa grass hay to bump the calcium content in the ration and provide more protein. Four to eight weeks before calving, the cow's dietary requirements for calcium and magnesium increase as the body begins to mobilize calcium and magnesium from her bones to develop the colostrum. A cow's ability to mobilize those minerals decreases as she ages and along with high milking cows that just require more calcium and magnesium, rations generally need to be supplemented. Legumes are high in calcium so saving that alfalfa or alfalfa/grass hay for the last months of the third trimester and into lactation is a good idea. After calving, when a cow is lactating, she needs a much higher level of protein and energy than when she is pregnant. The goal for after-calving nutrition is to have the cow on an increasing plane of nutrition to maintain or gain a little weight each day.

Monitoring the weather throughout the winter feeding season is also extremely important. During winter, cattle need to increase feed intake just to maintain body heat in cold weather. It helps if they go into winter in good body condition. Cows can withstand cold temperatures as long as they have the body condition (fat) to insulate them. If necessary, they will burn stored energy (fat) reserves to stay warm. In order to maintain body condition, cattle must receive enough daily energy to maintain body temperature in addition to the energy required to meet maintenance requirements. Days of cold weather with no extra energy provided can decrease a cow's body condition. A 1350 lb. cow at the end of her second trimester with a BCS of 3.5 on free choice hay or greenfeed shouldn't have any nutritional concerns in a daytime temperature of -10 C and a 10 km/hr wind. But when the weather changes to -40 C for a daytime high and the same wind speed, she needs to consume an additional 5 lbs of barley grain in order to maintain her body weight.

Generally it is a good practice to evaluate forage supplies early. This allows plenty of time to source additional forage and supplements, if necessary. Consider all your options for supplementation, thinking about how compatible feedstuffs are with forage-based diets and about price per unit of energy and price per unit of protein.