

## Meeting Cow Calf Nutritional Requirements This Winter

By Terry Kowalchuk Saskatchewan Ministry of Agriculture Provincial Forage Specialist

Limited hay supply along with high prices in many areas of the province have some cow calf producers seeking alternatives to perennial hay to carry their herd through the winter. Rainfall since late June has helped with supply recovery but hay yields were generally average to poor this year and may need to be supplemented with grain, greenfeed, or straw.

Availability and cost of alternative feeds vary depending on local supply and demand and may buying additional feed may not be practical in areas dominated by range and hay land were distances and trucking costs may be prohibitive. In these areas harvest alternatives such as slough and ditch hay may be the only viable option. Regardless of location or source, the nutritional value of feed will vary between feed (different hay types, greenfeeds, straws, and grains) between fields, and from year to year. Knowing the nutritional value of these feeds is essential to meeting the requirements of your animals.

Protein and energy requirements of cows increase through the gestation period (Table 1). A survey conducted by the Ministry of Agriculture a few years ago, found that much of the feed surveyed did not meet nutritional requirements of cows in their third trimester which often coincides with cold winter conditions. Feed testing and ration adjustment can help match nutritional needs during pregnancy and lactation to maintain animal health and improve overall productivity of the herd.

**Table 1.** Protein and energy requirements of beef cows

<b>Cows (all values as 100 % Dry Matter)</b>		
	<b>Crude Protein (%)</b>	<b>Total Digestible Nutrients (% min)</b>
Mid pregnancy	7 - 8	55
Late pregnancy	9 - 10	60
Lactation	11 - 12	65

In areas where hay the main available feed increasing the amount fed may not be adequate if the neutral digestible fibre of the hay is high because as NDF increases intake decreases. In these situations, a grain supplement may be required. In areas where alternative feeds are available, feed tests can be used to blend them into a ration that meets the specific needs of your animals.

Each type of forage should be submitted for a feed test. For instance, if a producer harvests an alfalfa/grass mixed stand, barley greenfeed, and a salvage canola crop for greenfeed, samples

from each of these fields should be collected separately and submitted for feed analysis. Listings for feed testing labs can be found under the Sask Forage Council links page under the heading Forage Testing Labs.

When submitting forage samples for feed testing, it is important to collect a sample that is representative of the forage supply. A hay probe is the best tool to use to collect forage samples. A hay probe allows for a cross section of the bale to be sampled, collecting both stems and leaves. Collect a single sample from up to about 20 bales from the same field or lot. Combine the probe core samples into one composite sample for analysis. When sampling large round bales, samples should be collected on the round side from the lower half of the bale, where there is a minimal amount of weathering. Hay probes are available for use from each Saskatchewan Ministry of Agriculture Regional Office at no charge.

When submitting the forage sample, take the time to describe the forage properly. For example, a description of “70 % brome grass, 30 % alfalfa” or “barley greenfeed” provides greater detail than “hay”. Choosing the most appropriate feed analysis is important. A standard forage quality test provides information on moisture, energy, fiber and mineral content. Feed test results are reported on an “as fed” and a “dry matter” basis. Dry matter basis means that all the moisture has been removed, which is important when comparing nutrient content between forages or other feed ingredients.

Your regional livestock and feed specialists can help in interpreting test results and developing a balance ration. For more information, contact the Agriculture Knowledge Centre at 1-866-457-2377.