Head office
1805 Sawmill Road
Conestogo, On, N0B 1N0:
Tel: 519.664.2237
Fax: 519.664.1636

Mount Forest
Tel: 519.323.1880
Fax: 519.323.3183

Tavistock
Tel: 519.655.3777
Fax: 519.655.3505

Toll Free 1.800.265.2203

Volume 12, Issue 6 **Conestogo, Mount Forest, Tavistock** **Dec. 2012—Jan. 2013**

Understanding Feed Energy Values

One of the questions I get from cow-calf producers relates to interpreting feed test results, particularly energy values. Part of the confusion stems from the fact that in a given report, you are liable to receive up to five different measures of feed energy. These include digestible nutrients (TDN), digestible energy (DE) and net energy (NE), the latter can be partitioned into net energy for maintenance (NEm), gain (NEg) and lactation (NEl). To understand these values know how they apply to your feeding program, it is important to understand the concept of energy and how it is used by the animal's body. Energy is stored at varying levels within the chemical bonds of a feedstuff including carbohydrates, fats and protein. This energy can be released when these bonds are broken during digestion and metabolism. A considerable portion of consumed energy is also wasted. This includes energy excreted in feces and urine as well as energy lost as gas (ie. Methane) and heat.

Total digestible nutrients (TDN) is reported as a percentage of dry matter and represents the sum of digestible nutrients in a feed including protein, fiber, carbohydrate and fat. Digestible energy represents the energy in a feedstuff that is apparently available to the animal. It is determined experimentally by taking the difference between total energy consumed and that excreted in the feces. Digestible energy is reported as mega calories (Mcal) per pound or kilogram of dry matter. There is no great advantage to the use of TDN relative to DE. For example, they tend to overestimate the energy content of high-fiber feeds.

The NE system attempts to account for all energy losses during digestion and metabolism and separates the remaining available energy into uses for maintenance (survival) and productive purposes (gain, lactation). The NE system is particularly valuable when predicting the performance of feeder cattle. Feed test laboratories are not able to measure feed energy directly using animal feed trials, rather they use equations that relate energy content to a measured component of the feed such as its acid (ADF) or neutral (NDF) detergent fiber content. For example, ADF is a measure of the cellulose and lignin content of the plant. Since the ADF content of a pant generally increases with advancing maturity, it can be used as an indirect measure of digestibility. Typically, the higher the ADF value, the lower the digestibility and the lower the TDN or DE value. Reported energy values generally are not measured directly, rather they are converted from TDN or DE values using appropriate equations.

Your first step is to determine the animal's daily energy requirement. This can be done using Cowbytes program. Regardless of the system used, if your forage tested higher or lower in energy content, you would need to adjust dry matter intake in order to prevent the animal from gaining or losing condition. Further adjustments will be required as she advances through pregnancy and when the animal is cold stressed. This ability to target nutrient requirements and subsequently feed allocation is one of the true values of a feed test. (John McKinnon)

Preventing Rodents

Rodents in a farm environment are a fact of life, but not all of us realize the full extent of the financial and health threat they pose. Producers need to act quickly when they face a rodent infestation, because it is significantly easier to deal with the first pair coming into the barn rather than the 500 at the end of the year. The average mouse will consume 2-4 grams of feed a day, while a rat 28 grams. Although it does not seem like much, it can represent between 730-1460 grams for one mouse and 10 kilograms for one rat over just one year. Rodents also cause damage to buildings. They gnaw at wood, water pipes and electrical wires, which can cause fires, equipment malfunction, power outages, water leakage and expensive structural damage. Rats and mice can be responsible for transmitting diseases. They contaminate feed supplies with viruses and bacteria that are detrimental to the health of livestock. They can transmit such diseases as salmonella, plague, toxoplasmosis, leptospirosis, rickettsia and pox. They also carry fleas, ticks and other parasites. They also represent a food source that attract predatory animals such as foxes, skunks and cats that may impose a biosecurity risk to your herd.

Continued on page 2...

WE WILL BE CLOSED ON DECEMBER 25 & 26 AND JANUARY 1ST.

OUR OFFICE WILL ONLY BE OPEN UNTIL 12:00 NOON ON MONDAY DECEMBER 24 AND MONDAY DECEMBER 31ST.

PLEASE ORDER YOUR FEED ACCORDINGLY.

FUTURES MARKET

BEEF

DECEMBER	128.37
FEBRUARY	132.32
APRIL	135.92

PORK (US $ PER CWT.)

DECEMBER	82.48
FEBRUARY	87.38
APRIL	91.90

HOURS OF OPERATION AT THE CUSTOMER SERVICE DESK

Monday –Friday: 8:00 a.m.—5:00 p.m.

Ways to place your order:

Toll-free: 1.800.265.2203

Fax: 519.655.3505

Email: orders@wsfeeds.ca

Online: www.wsfeeds.ca

Preventing Rodents—Continued

Effective control consists of 3 steps: 1)Sanitation, 2) rodent-proof construction and 3) population reduction.

Keep barn premises clean. Remove all sources of water. Remove manure and feed spillage as often as possible. Thoroughly clean and disinfect the barn on a regular basis. Eliminate all openings through which they can enter a structure. A mouse can enter an opening as small as a dime (0.5 centimeters) and a rat through an opening the size of a nickel (1.25 centimeters). Make sure you plug holes and make all necessary repairs. Install wire netting over ventilation traps and pipes. To help control the rodent population, using a highly palatable single-feed anticoagulant rodenticide containing active ingredients such as difethialone or bromadiolone is proven to be the most effective way. The key to success is to alternate a few times a year and use the proper format (paste, pellets, mini-blocks, place packs) in the right locations. Always ensure that all rodenticides are securely placed in bait stations to prevent children and non-target animals from accessing the rodenticides. Buy a rodenticide product based on the price per placement and the price per dead rodent rather than on the price per bucket of bait. Purchasing very low cost rodenticides may require you use more. Use enough rodenticides within the bait stations to ensure an uninterrupted supply of bait by visiting and re-supplying bait stations on a weekly basis. Mice gestate for only 21 days. Place rodenticides in locations easy for the rodents to reach even if they are inconvenient for you to attain. By taking the time to develop an effective rodent control program you can manage your profitability and reduce the health risks to your herd. (Marc Lalonde, Vetoquinol)

Is Whole Milk "Cheaper" For Our Calves?

We're finding that Jersey calves are more fragile than Guernseys, especially during very cold weather. We have been feeding whole milk to both breeds (5 percent fat, 3.6 percent protein), 5 quarts a day split between two feedings. About half of the milk fed is saleable (just higher cell count), and our milk was worth $24 to $25 per hundred weight on average. A daily feeding of saleable milk would be worth $2.40. Hospital cows are milked just 2x which makes a third, winter-time feeding difficult due to timing with our batch pasteurizer. So, we're wondering about feeding Guernsey calves waste milk 2 x during winter and just using an accelerated replacer for the Jerseys which could more conveniently be fed 3x. A bag of that replacer would be about $75. Normal label would be to feed 2 pounds per day in 4 quarts warm water. The cost would be $3 per day. But, wouldn't we want to feed another pound of powder with 2 quarts of water at a third feeding? Also, how much do you think we should be able to bump-up waste milk feeding on a twice a day schedule for the Guernseys during winter without running into problems? What about the rest of the year?

Using the Penn State calculator (download the Excel spreadsheet at http://on.hoards.com/PSU-calculator), we compared the numbers you provided to the whole milk diet that is fed to all of the calves now with the cost milk replacer diet that you might feed to the Jersey calves in the future. Cows Match Jersey Blend milk replacer was used for the crude protein and fat inputs in that section of the calculator and we used 3 pounds of powder (1 pound three times daily) as a good winter feeding plan. The calculator output shows the nutritional and cost comparisons of the two diets.

We encourage you to feed more whole milk to the Guernsey calves in the winter. The winter and summer whole milk feeding programs are very likely to result in calves doubling their birth weight by weaning. With a high nutritional plane, we expect that calf health will be excellent. As you progress from 5 quarts of whole milk to 6 and then 8 quarts per day, the dry matter fed per calf will advance from 1.40 (5 quarts) to 1.68 (6 quarts) to $4.21 (8 quarts) pounds per day. With the growth in volume fed, the cost per day for whole milk feeding changes from $2.63 (5 quarts) to $3.16 (6 quarts) to $4.21 (8 quarts) per day. The projected cost do not factor in the cost of pasteurization.

With either a whole milk or a milk replacer diet,, strive for consistency, and monitor total solids on a regular basis. Provide fresh water (preferably warm water in the winter) twice daily along with a good-quality texturized calf starter. For consistency alone, we favor a milk feeding plan that is the same from birth to weaning, but you can use the calculator to reassess feeding plans from season to season or with changes in milk or milk replacer costs. (Sheila McGuirk, School of Veterinary Medicine)

We're on the Web!
www.wsfeeds.ca

Specials for December

Buy 10 Ranch Blocks at regular price and receive a free bag of 20% Lamb Starter/Bov. #BG65122. Goat customer's will receive a free bag of the New 21% Calf Starter Pellet # 7141

This special will run as long as the RANCH BLOCKS last. There will be no rain checks.

WE WISH YOU A MERRY CHRISTMAS AND A HAPPY NEW YEAR!

W-S FEED & SUPPLIES LIMITED