



W-S Feed & Supplies, Ltd.  
1805 Sawmill Road  
Conestogo, ON N0B 1N0  
Canada  
1.800.265.2203  
[www.wsfeeds.ca](http://www.wsfeeds.ca)

*Taking service to another level!*

### **Forage Digestibility Impacts Protein Needs**

The typical dairy ration contains a mixture of forages and concentrates. The concentrate portion contains carbohydrate sources such as corn and a mixture of protein ingredients, along with minerals and vitamins. Nutritionists try to formulate a protein source to maximize milk production. In general, a protein supplement is the most expensive ingredient in a ration. It is important to understand how the forage program and rumen function help meet the protein needs of the dairy cow. There are two types of feed proteins. One type of protein is utilized by rumen microorganisms and is termed degradable intake protein (DIP). The other type of feed protein passes through the rumen without being degraded and is termed undegradable intake protein (UIP). Dairy cows require both DIP and UIP.

Proteins are made up of chains of amino acids. Research has found that cows have requirements for amino acids that include Methionine (MET) and Lysine (LYS), which are thought to be the two most limiting. Nutritionists formulate protein sources to meet the DIP and UIP needs of the dairy cow. Research shows when MET and LYS are provided in UIP sources in approximately the same proportion as what is found in milk, then milk production and milk components are maximized. Nutritionists must try to blend a variety of protein sources with differing amino acid contents to attempt to meet the needs of the cow.

Within the rumen, DIP is broken down into amino acids by the rumen microbes. The rumen microbes further break down some of the amino acids into more basic nitrogen components. The nitrogen is used by the rumen microbes to help them grow in numbers. Once the rumen microbes die, they pass from the rumen and are digested by the cow. Rumen microbes are approximately 50% protein and contain a near-perfect balance of amino acids needed by the cow. They are, essentially, the perfect UIP protein.

One of the best ways to maximize rumen function economically is to feed highly digestible forage. Digestibility also improves the rumen function of the cow, resulting in an increased population of rumen microbes. It is estimated that up to 2.7 kg of crude protein are supplied daily to the dairy cow by rumen microbial protein production. A rule of thumb suggests each pound of crude protein will support 4.5 kg of milk. If 2.7 kg of microbial protein are produced, rumen function itself can support 27.2 kg of milk.

Nutritionists strive to maximize rumen function while also meeting the nutritional needs of the cow. Feeding highly digestible forages will feed the rumen microbes and allow for maximum growth. Not only do highly digestible forages impact overall performance of the

cow, they also indirectly improve the protein status of the nitrogen program. It is important in a dairy ration to maximize rumen function. Forages can impact the amount of microbial protein produced by the cow. However, forages that are not digestible will actually increase the ration cost because more UIP protein will need to be supplemented. It is critical to the performance of the cow and the economics of the feeding program to build the nutritional program around highly digestible forages.

For additional information on forage digestibility and the impact of specific hybrids contact me. I can help you review your entire forage and ration program with the goal of improving results in productivity and bottom line profitability. Additionally, I can assist you in selecting the best corn hybrids and forages for your operation. Call me today, so we can work together in making the most of your entire ration program.

### **Biosecurity & a Quality Feedsources**

There has been a lot of talk about biosecurity and the safety of feeds in recent years. It is certainly important to consider developing a biosecurity program for your farm, and if you already have one to take time and review this on a regular basis. Additionally, it is important to know the quality and safety of feedstuffs coming on your farm, taking time to evaluate what is brought on your farm – whether from purchased livestock or any feedstuffs. W-S FEED and its partner, Renaissance, have always placed a great deal of emphasis on biosecurity issues, including the provision of recommendations that can effectively assist your efforts. We are keenly aware of concerns related to the safety of feedstuffs. You have our assurance that we will continue to maintain the strictest quality control measures for all raw ingredients from purchase and production to delivery onto your farm. The safety of both livestock and human foods is vitally important to all of us. Let's work together in maintaining the quality we have come to appreciate in our food, while keeping our farms secure havens of productivity and profitability. It takes time and thought, but is an investment in quality at all levels.

*Interested in discussing topics in this newsletter, or want to do a better job feeding and managing your cows?*

*Call us!*

*Our goal is to help you.*

*That's the W-S Feed commitment!*

**VOLUME 5 – Number 2 – February 2015**

**WORKING FOR YOU EVERY DAY**  
**NUTRITION-FARM MANAGEMENT-PRODUCTS**  
**W-S FEED... the team for Results!**

# Keep 'em growing!

Your calves are a very important aspect of the farm. Keeping calves dry and well-bedded, and housing them in a draft-free environment is critical in helping them maintain body heat and health throughout the winter. Using a good calf blanket can also make a difference in the growth and development of your calves. A well-managed calf program includes a quality, carefully formulated milk replacer and calf starter. After all, calves are the future of your milking herd. Giving them a good start will make a real difference in their growth and development. This will ultimately impact their overall productivity and bottom line profitability.

**Get the facts and watch 'em grow!  
Contact us today.**

## Cows & Winter...

Maintaining dairy cows throughout the winter months can be challenging, since much of their time is spent indoors. It is important during this time period to ensure good ventilation and a dry, clean environment. This includes the quality and condition of bedding, along with the entire barn environment.

Dirty stalls (and a dirty barn) lead to dirty teats and udders, creating an environment that is conducive to diseases such as mastitis and other infections. Under the right set of circumstances, bacteria can play havoc on your herd's health, impacting productivity and profitability.

Consider these tips to maintaining a healthier barn environment: a) Make sure there is adequate ventilation and fresh-air exchange at all times; b) Keep your facilities as draft-free as possible; c) Keep bedding dry and clean; d) Ensure that walkways and stalls are cleaned regularly. Pay careful attention to these things throughout the rest of winter and into early spring.

The time you invest now in maintaining these necessities can have a dramatic impact on your bottom line... and your cows would thank you, if they could! Rest assured that spring is on its way.



W-S Feed & Supplies, Ltd.  
1805 Sawmill Road  
Conestogo, ON N0B 1N0  
Canada

[www.wsfeeds.ca](http://www.wsfeeds.ca)

*Taking service to another level*



# FEBRUARY 2015

## Forage Digestibility Impacts Protein Needs!

## Biosecurity & A Quality Feedsources

## Keep 'em Growing!

## Cows & Winter...

# CHECK IT OUT!