

Adams Advanced Nutrition, Inc.

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Maintaining a healthy rumen...

Cows are remarkable for their ability to utilize feedstuffs in an efficient way and convert this into milk. Essential to this process is the health of the rumen and its resident microbial population. If the rumen becomes dysfunctional, digestion is impaired and the cow becomes susceptible to a range of metabolic disorders. If, however, a cow is expected to reach her genetic potential for productivity, along with good health, it is critical that the rumen environment is maintained in a "healthy" state.

The rumen is essentially a fermentation chamber where microbes digest feedstuffs. Digestion of food in the rumen occurs from a combination of microbial fermentation and the physical breakdown during the process of rumination. The by-products of microbial fermentation [mainly volatile fatty acids and microbial protein] are available for absorption and use by the cow. Volatile fatty acids can supply up to 80% of the animal's energy requirement, while microbial protein leaving the rumen can account for between 50 and 90% of the protein entering the small intestine. In view of the importance of the rumen and its microbial population, it is not surprising that a great deal of attention and effort is devoted to balancing rations that will contribute to a healthy, well-populated rumen... and a well-maintained, high producing cow!

The rumen microbial population exists in a highly dynamic state, specialized to survive and thrive within the rumen. This includes specific pH levels (above 6.0), an anaerobic environment (lack of oxygen), and a temperature between 96.8 to 105.8°F.

However, microbial populations can change dramatically with any number of factors such as feeding frequency and type of diet. That is why a carefully formulated, balanced diet can have an affect on your cows. Such changes greatly impact cows' health and productivity.

Maintaining a healthy rumen is a balancing act. When we expect our cows to perform, we need to ensure they have a healthy rumen. This is achieved by giving them a balanced ration that meets their energy, protein and fiber requirements. When the rumen microbes are properly fed, the cows' efficiency improves. A better understanding of the workings of the rumen as a whole will enable us to maintain the fine balance needed to ensure productivity and profitability.

Ask me for more information on how to maintain good rumen function and a balanced ration. Feeding the rumen will feed your cows and benefit your bottom line.

(edited from Maintaining A Healthy Rumen, Lyle Rode, Research Centre, Agriculture and Agri-Food Canada, Alberta Canada)

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Forages... after the harvest!

Home-grown forages are essential for the productivity and profitability of your entire herd. Forages are the starting point for solid, practical nutrition. Once the harvest has been completed it is a good idea to:

- Test forages to determine nutrient value
- Calculate forage inventory for winter
- Determine cow numbers to be fed from the forages you have available
- Allocate forages by quality
- Work with a Renaissance nutritionist to balance rations for heifers, dry cows and lactating cows using available forages

Testing forages to determine dry matter and nutrient content is essential to a sound nutritional program. Forages often "look"

better than the analysis reveals. Furthermore, nutrient values vary from year to year, making it a challenge to maintain balanced rations. When the nutrient value [of forage] is unknown and a ration is formulated, what is actually fed can increase feed costs unnecessarily – or fall short of meeting basic nutritional requirements of your livestock. Either way, production and bottom line profit is impacted. Having forages analyzed is an investment in the body condition, health and productivity of your entire herd. This also applies to the growth, conditioning and development of replacement heifers and dry cows. Any losses in conditioning and growth at these critical times will critically effect their next (or future) lactation.

Ensuring sufficient forage inventories is important as we go into the winter months. Calculations should be made to ensure there is enough forage of *sufficient quality* to feed the entire herd. Working closely with your nutritionist, you can determine how much forage is needed for each group this winter. Once quality and inventories are known, it is easier to formulate a balanced, best-cost ration for the coming months. I will be happy to help you with this process, making the most of home-grown forages during the cold winter months ahead.

(edited from Dairy Nutrition Strategies, Amaral-Phillips, U of Kentucky)

Renaissance... maximizing homegrown forages & balancing rations!

Prepared for winter?

Before the cold of winter really hits... be prepared: winterize water fixtures and farm equipment; secure doors and windows; make sure calves and heifers have adequate protection and bedding against cold and winter storms; and much more. Being prepared will save time and money.

Interested in discussing topics in this newsletter, or want to do a better job feeding and managing your cows? Call me! My goal is to help you. That's Renaissance's commitment to you!

VOLUME 3 – Number 12 – December 2004
RENAISSANCE... wishing you a
Happy Holiday!

Happy Holidays!

Thank you for your business and support throughout the past year. I look forward to working with you in the future, as together we make a difference on your farm. I want to wish you and your family the very best this Holiday Season and throughout the coming New Year!



Doug



WHAT'S IT LIKE AROUND THE FARM?

It's getting mighty cold these days! And it's going to get colder (as we all know). Winter weather is beginning to make us aware of eminent changes like cold, damp, windy and snowy conditions! This adds to an already hectic schedule around the farm, creating more work and generally making life a bit more difficult. While cows prefer cooler temperatures they also need to be kept in draft-free... BUT well-ventilated areas. This applies to every group on your farm: calves, heifers, dry and lactating cows. Maintaining a comfortable environment is important to the health and well-being of your herd, impacting productivity and profitability. Consider drafts versus ventilation in facilities, looking for things like excessive condensation on windows, walls and ceiling (a sign of poor ventilation); cold air leaks around windows and doors when not properly secured (drafts), etc. Consider the comfort and ventilation of your herd and see how they perform!

A POINT TO PONDER...

The sights and sounds of the Holiday Season abound! People frantically dash to and from shops; homes become hives of activity – hiding and wrapping gifts, baking goodies, decorating inside and out; and churches and community organizations overflow with activities and special programs. Many of us are abundantly blessed. But, do we take time to reflect on those who are less fortunate? On those who are truly in need of a meal... a warm bed... clothing... or even a word of encouragement and love? Make this Holiday Season count by sharing with others. When we give from the heart we reap blessings beyond imagination. Take time to care... and time to share. It makes a difference!



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Happy Holiday ~

from all of us at Renaissance.

Working with you for results!

