

Optigen®

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Pushing the boundaries of protein nutrition

Optigen® is an innovative ingredient that provides a controlled release of non-protein nitrogen (NPN) to the rumen over time. This ensures that rumen bacteria have continued access to this essential food source, leading to an **increase in microbial protein, fiber digestion and available energy for milk and meat production.**

Wasted nitrogen means wasted performance

In ruminant production systems, 75–95% of the dietary nitrogen consumed as feed protein is excreted. This nitrogen is wasted because ruminants are generally unable to use nitrogen efficiently, and this has a major impact on **animal performance, profitability and the environment.**

Under common feeding practices, there are periods of excess followed by periods of deficiency regarding rumen ammonia levels. This is particularly evident when the diet is supplemented with urea or fat-coated urea products, which release ammonia in the rumen all at once. **Excess rumen ammonia is wasteful and potentially toxic**, as it can lead to elevated blood urea nitrogen (BUN) levels and, subsequently, milk urea nitrogen (MUN) levels. On the other hand, when there is a deficit of rumen ammonia for a considerable amount of time, the rumen bacteria don't have access to this food source required for growth and, as a result, productivity slows down.

The controlled and continual supply of ruminal ammonia provided by Optigen serves to meet the nitrogen needs of rumen microbes more effectively than other sources, such as straight feed urea. This leads to more **efficient use of dietary nitrogen, an increase in the microbial protein supplied to the animal and reduced nitrogen excretion.**

Benefits of Optigen in dairy cows:

- Optimizes milk production
- Enhances microbial protein production and fiber digestion
- Increases energy available for milk production
- Reduces the carbon footprint of dairy diets by decreasing the inclusion of high-carbon feedstuffs, such as soybean
- Helps maintain performance during periods of heat stress
- Helps maintain rumen health and efficiency
- Allows for the opportunity to formulate cheaper feed ingredients and lower the cost of rations