

Hélène Lapierre

Addendum to the question round at the Dairy Nutrition Symposium 2017

David Levick

We want more milk protein. What is the practical application of infusing casein post rumen? What would you put in the cows mouth to replicate this response?

RESPONCE:

The first 2 studies using post-rumen casein infusion were more a "proof of concept" where we wanted to determine the effect of an increased protein supply, without any other interfering factors. With the effect that had been observed, a field trial has been conducted and was also briefly presented. Two kg/d of a protein concentrate has been added to the 3 kg of concentrates delivered in the robot milking and resulted in an increased milk production in the multiparous cows (see last slide on page 62 and page 63). The protein concentrate consisted of an equal mix of soypass, maize gluten meal, and potato protein: more than one protein source was used to avoid any potential shortage of a specific amino acid.

Roselinde Goselink

The degree of protein mobilisation in early lactation differs between individual animals. What factors could be involved?

RESPONCE:

Numerous factors might be involved, ranging from factors inherent to the cow's genetic to the "preparation" of the cow pre-partum (how and for how long she was dried, how she was fed, etc.). In fact there is more and more interest in looking at individual variations in addition to treatment means to explore the key regulator factors.

Michael Reid

In the protein trial, was Milk urea Nitrogen measured? With increased dietary protein, you would expect this, and while there was an increase in protein yield, the true protein content may not be significantly different.

RESPONCE:

All results reported were milk TRUE protein yield, i.e. that non-protein Nitrogen fraction was not included in the differences presented: these were only TRUE protein. Milk urea nitrogen has not been measured, but for your information, non-protein N was reported in the second study and increased by 1.1%, from 5.06 to 6.13% of milk crude protein.