

A. Steinwigger and L. Gruber (1998): **Feeding and animal factors influencing milk urea content of dairy cows** (in German). *Agribiological Research*, 51 (4), 341-355.

Summary

Data (n = 1567) of feeding experiments were analysed for feeding and animal factors influencing the milk urea content of dairy cows.

The partial correlation analysis showed a weak stochastic relation between milk urea content and selected parameters for the description of rumen metabolism (r = -0.4 to +0.5). The highest correlation between milk urea content and parameters of energy and protein intake was found when carbohydrate (energy) and digestible crude protein (protein) content (r = 0.5) were used as variables in the analysis.

Regression analysis showed a significant influence of breed and animal, but protein and energy supply of rumen microbes was most important. Additionally, stage of lactation, milk protein yield, supply of utilizable protein in duodenum (nXP) and feed intake proved to be significant. The lowest residual standard error was found when using carbohydrate and digestible crude protein for describing the rumen nitrogen metabolism. Nevertheless the high residual standard error of 3.9 mg/100 ml of milk urea shows, that a remarkably high proportion of variation is caused by factors not considered in the model. This should be taken into account when milk urea data are interpreted.

Keywords: Milk urea content, dairy cows, influence factors, energy and protein supply

Zitat (Deutsch):

A. Steinwigger und L. Gruber (1998): Fütterungs- und tierbedingte Einflußfaktoren auf den Milchharnstoffgehalt von Milchkühen. *Agribiological Research*, 51 (4), 341-355.