Acta Universitatis Agriculturae Sueciae

Doctoral Thesis No. 2017:34

The studies in this thesis investigated the potential for using ^{15}N-labelled forage nitrogen fractions in ruminal protein metabolism studies. New *in vitro* and *in vivo* methods and modelling techniques were developed and evaluated. The developed *in vitro* methods were used to evaluate ruminal protein value of heat treated legume seeds and dried or ensiled timothy and red clover forages.

Merko Vaga received his graduate education at the Department of Agricultural Research for Northern Sweden, SLU, Umeå. He received his Master of Science in Agriculture at the Estonian University of Life Sciences, Tartu, Estonia.

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Investigating Ruminal Nitrogen Metabolism

In Vitro and *In Vivo* Studies Using ^{15}N-labelled Forage Nitrogen Fraction

Merko Vaga