

CV – NIKOLAJ PEDER HANSEN

Personal data: Born November 5, 1989, Denmark, Email: Nikolaj.hansen@anivet.au.dk. Mobile phone +45 28605590

Current employment: Postdoc in ‘Ruminant nutrition, feedstuff evaluation and processing/biorefining’ at Department of Animal and Veterinary Sciences (ANIVET) Faculty of Technical Sciences Aarhus University (AU)

Scientific focus areas: The main research area covers ruminant nutrition. I emphasize on feed evaluation, fiber digestion, and protein metabolism, and have experience with conducting large-scale production studies, intensive digestibility trials with measurement of methane production using multi-cannulated cows, and laboratory analysis for feed evaluation. The research also focuses on the circular perspectives of the interdisciplinary work between forage production, bio-refinery, and feed utilization in production animals.

Education:

2008-2011 College degree in agronomy

2012-2015 BSc, Animal Science, Faculty of Science at University of Copenhagen, Denmark

2016-2018 MSc, Agrobiology, Faculty of Science and Technology, Aarhus University, Denmark

2018-2022 Ph.D, Faculty of Technical Sciences at Aarhus University, Denmark

Employment:

2008-2012 Practical work on farms in Denmark and Australia

2015-2016 Extension, cattle production, Farmers union

2018-2022 Ph.D, Faculty of Technical Sciences at Aarhus University, Denmark

Project management and participation: Project leader: **FiberMilk** (2.6m EUR; 2024-2027; Genetically improved fiber digestibility of grass and legumes to secure environment and climate friendly milk production), **GRÆSMETAN** (1.3m EUR; 2024-2027; Methane production from dairy cows in different grazing systems) and **KvaliGræs** (0.6m EUR; 2020-2024; Feeding value and optimal time for harvest of various grass species). Active participation and responsible for major practical parts in the following projects: “Optimal utilization of bio-refined pulp from green biomass as cattle feed” and “Barn feeding with fresh grass”.

Other activities: Leader of the theme group ‘Green and Blue Biomasses for Feed’; Representative in (i) ‘Det permanente frøblandingsudvalg’ (Committee responsible for outlining the national recommendations of seed mixtures used by farmers), (ii) ‘Grovfoder erfa-gruppe’ (National knowledge exchange group focusing on forage production, where I am the university representative), and (iii) Committee in ANIVET responsible for outlining targets for forage production at the Danish Cattle Research Centre (DKC); Teaching on courses on BSc., MSc., and PhD levels; Supervision of 2 PhD students and several BSc. and MSc. students.

Publications: Publication list enclose in total +30 publications, hereof 14 peer reviewed. For nearly full publication list, see [https://pure.au.dk/portal/da/persons/nikolaj-peder-hansen\(7e686aa4-d375-4885-84c7-f272c3b1d342\)/publications.html](https://pure.au.dk/portal/da/persons/nikolaj-peder-hansen(7e686aa4-d375-4885-84c7-f272c3b1d342)/publications.html). Below some recent/relevant peer reviewed international publications:

Hansen, N.P., S.K. Jensen, M. Johansen, A.L.F. Hellwing, M. Ambye-Jensen, M. Larsen, and M.R. Weisbjerg. 2022. Fiber digestibility and protein value of pulp silage for lactating dairy cows – effects of wet fractionation by screw pressing of perennial ryegrass. *J. Dairy Sci.* 106:937-953.

Hansen, N.P., T. Kristensen, M. Johansen, L. Wiking, N.A. Poulsen, A.L.F. Hellwing, L. Foldager, S.K. Jensen, L.B. Larsen, and M.R. Weisbjerg. 2022. Effects on feed intake, milk production, and methane emission in dairy cows fed silage or fresh grass with concentrate or fresh grass harvested at early or late maturity stage without concentrate. *Journal of Dairy Science.* 105:8036-8053.

Hansen, N.P., J.L. Bitsch, S.K. Jensen, M. Johansen, M. Larsen & M.R. Weisbjerg. 2022. Effects of silage additives on the ensiling characteristics of pulp from bio-refining. *Proceedings of the 11th Nordic Feed Science Conference, 22-23 August 2022, Uppsala, Sweden.* 47-50.

Hansen, N.P., V.K. Damborg, L. Stødkilde, M. R. Weisbjerg, and S. K. Jensen. 2022. Mineral concentration in fractions of green forages after screw-pressing. *Proceedings of the 29th EGF general meeting, 26-30 June 2022, Caen, France.* 167-166.

Hansen, N.P., T. Kristensen, M. Johansen, A.L.F. Hellwing, P. Waldemar, and M.R. Weisbjerg. 2021. Shredding of grass-clover before ensiling: Effects on feed intake, digestibility, and methane production in dairy cows. *Animal Feed Science and Technology.* 282:115124.

Hansen, N.P., M.R. Weisbjerg, M. Johansen, and S.K. Jensen. 2021. Digestibility of grass fibre increased by screw pressing in a bio-refinery. Page 336 in the Book of abstracts of the 72nd annual meeting of the European federation of animal science. Davos, Switzerland.

Hansen, N.P., M. Johansen, L. Wiking, M. Larsen, P. Lund, T. Larsen, and M.R. Weisbjerg. 2021. Fava beans can substitute soybean meal and rapeseed meal as protein source in diets for lactating dairy cows. *Journal of Dairy Science.* 104:5508-5521.