

## Editorial news and events

### Book review

Proceedings of the Society of Nutrition Physiology, Vol. 17, Society of Nutrition Physiology (Ed.), DLG-Verlag Frankfurt (Main) (2008), 215 pp., Price: 29,90 € plus postage, Softcover, ISBN 978-3-7690-4101-9.

The 62<sup>nd</sup> Annual Meeting of the Society of Nutrition Physiology of Germany was held at Goettingen from 1 to 3 April 2008.

The Proceedings of the meeting comprise 133 abstracts, one review paper on “Metabolic programming in farm animals” (10 pp.), five contributions (25 pp.) of the workshop “Potentials of animal nutrition to improve resource efficiency” and two Communications of the Committee for Requirement Standards of the Society of Nutrition Physiology.

The abstracts (one page each) are devoted to the following topics:

1. Metabolism, growth, lactation (24 papers),
2. Minerals and trace elements (11 papers),
3. Fat and lipids (eight papers),
4. Additives (19 papers),
5. Digestion (13 papers),
6. Free topics (13 papers),
7. Undesired materials (four papers),
8. Transport and epithelial physiology (seven papers),
9. Animal feed (12 papers),
10. Vitamins (three papers);
11. Amino acids and nitrogen (14 papers),
12. Energetics (two papers),
13. Effects on the environment (three papers).

Most of the papers are presented from scientists at German institutes of animal nutrition and animal physiology, but contributions are also included by scientists from other European countries as well as from overseas.

The invited lecture by Cornelia C. Metges, Winfried Otten und Charlotte Rehfeldt from the Research Institute for the Biology of Farm Animals (FBN)

Dummerstorf, Germany, dealt with metabolic programming of farm animals. After an introduction, the authors analysed the programming in pigs and ruminants, tried to explain the mechanisms and offered some conclusions and an outlook for the future. The review is restricted to examples of programming *via* maternal energy and protein nutrition, as well over- and under-nutrition during gestation, and early-life nutrition in pigs and ruminants, with a focus on long-term effects. The authors conclude that the available literature on metabolic programming effects in farm animals is scarce and the experimental designs used are very diverse. Most of the studies were done in rodent models and are not comparable to the practical conditions in farm animals. The answering of open questions, esp. in the dairy cow, requires tremendous long-term research.

The speakers of the workshop “Potentials of animal nutrition to improve resource efficiency” dealt in detail with general aspects of greenhouse gases as well as methane, nitrogen, phosphorus and trace elements .

U. Dämmgen and H.D. Haenel from the von Thuenen-Institute (vTi) Braunschweig, Germany, analysed the emissions of greenhouse gases and gaseous air pollutants – a challenge for animal nutrition. The authors conclude that there is, and will be, an increasing pressure on agriculture to reduce emissions of both air pollutants and greenhouse gases. Animal nutrition plays a key role in the overall production process. The assessment of emissions from animal husbandry in inventories relies on the scientific input from animal nutrition physiology. Therefore, emission reduction is truly a challenge for animal nutrition.

M. Kreuzer and C.R. Soliva from the ETH Zürich, Switzerland, dealt with the topic nutrition: Key methane mitigation in ruminants. The authors analyse direct or indirect mitigation of methane emissions of ruminants or a combination of both; they consider the effect of diet types, feeds and feed additives. They conclude that a comprehensive evaluation of methane mitigation measures, including a detailed life-cycle assessment, still has to be performed.

A. Susenbeth from the University Kiel, Germany, discussed key points of the utilization and excretion of nitrogen in pigs and dairy cows. The author explains some fundamentals in N-metabolism in pigs and cows, and selects five conclusions each type of animal for further discussion.

M. Rodehutsord from the University Halle, Germany, analysed possibilities to improve the efficiency of utilization of phosphorus. During the past two decades, much attention has been drawn to the use of phosphorus in livestock feeding because of the limitations in rock phosphate stores. The author describes past developments in ruminants, pigs and poultry. He analyses future perspectives and remembers that the ban of meat and bone meal from feeding in the EU caused an additional demand for mineral P sources of 110 000 t per year.

W. Windisch, T. Kickingner and H. Wuerzner from the BOKU Vienna, Austria, discussed high contents of zinc and copper in dung from agricultural livestock and the problems for animal nutrition. High contents of both trace elements in dung seem to mainly be a specific aspect of pig production. The authors conclude that animal nutrition would be responsible for high contents of Zn and Cu in dung from animal livestock, but also capable of reducing these contents to ecologically compatible levels by different measurements.

The Communications of the Committee for Requirement Standards of the Society of Nutrition Physiology deal with “New equations for predicting metabolisable energy of grass and maize products for ruminants” (7 p.) and with the “Prediction of metabolisable energy of compound feeds for pigs” (6 p.). The recommended equations base on broad datasets and allow a more precise prediction of the concentration of metabolisable energy in grass and maize products for ruminants and in compound feeds for pigs compared with previous equations.

The Proceedings review current research activities in animal physiology and animal nutrition in Central Europe and are recommended to all those working in animal nutrition and animal physiology. The Proceedings of the 62<sup>nd</sup> Meeting (Vol. 17, 2008) are available from the DLG-Verlag, Eschborner Landstraße 122, D-60489 Frankfurt am Main, Germany.

The next meeting of the Society of Nutrition Physiology of Germany (the 63<sup>nd</sup>) will be held in Goettingen from 10 to 12 March 2009.

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