



Editorial news and events

Book review

Proceedings of the Society of Nutrition Physiology The 71st Annual Meeting of the German Society of Nutrition Physiology Goettingen, March 14–16, 2017

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The proceedings of the meeting comprise one review paper entitled ‘Nutrition of veal calves: Interactions between Milk Replacer and Solid Feeds’ by W.J.J. Gerrits from the Wageningen University & Research, Wageningen, the Netherlands, 164 abstracts and 3 Communications of the Committee of Requirement Standards of the Society of Nutrient Physiology. A key word index (6 p.) completes the collection and facilitates working with the proceedings.

The author of the review analyses the change from milk or milk replacer to solid feeds in calf nutrition. From the animal welfare and economic perspectives, there is a strong incentive to replace a considerable portion of milk or milk replacer by solid feeds in the diet. Rumen development is initiated upon the consumption of solid feeds, triggering the production of short-chain fatty acids. The composition of solid feed, mainly the presence of coarse particles in the roughage portion of the solid fraction has important influence on the rumen development. The inclusion of 30% roughage in the solid feed is considered to be sufficient to prevent disturbances of rumen development (e.g., to prevent formation of plaques on the rumen wall). The urea recycling is one of the author’s next topics. He concludes that low N availability in the rumen limits microbial growth and rumen fermentation in calves fed low N

solid feeds (<100 g crude protein/kg DM), and this effect cannot be compensated by recycling of urea originating from milk replacer.

In the next paragraph the author deals with evaluation of the feeding value of solid feeds in veal calves. This is truly complicated because of the simultaneous provision of milk replacer. The author demonstrates how a separation of digestibility in stomach and small intestine would be possible. At the end, he concludes that the feeding values of solid feeds relative to those of milk replacers are also increased substantially with age, implying that additivity in feeding values of these ration components cannot be assumed. Finally, the author comes to the glucose homeostasis which is influenced by many factors, such as age, level of milk replacer, feeding and feeding frequency, nutrient synchrony and protein intake. Some details are described in the abstract and underlined with references.

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

- Energy (11 contributions)
- Transport and epithelial physiology (11 contributions)
- Environment (3 contributions)
- Minerals (9 contributions)
- Undesirable substances (6 contributions)

- Digestion (15 contributions)
- Amino acids and nitrogen (15 contributions)
- Feed additives (23 contributions)
- Feedstuff evaluation and feeding (36 contributions)
- Fatty acids (11 contributions)
- Other topics (24 contributions).

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

The numbers of contributions show a certain imbalance, as there is no paper on vitamins and only 3 papers are about environmental topics on the one hand, but on the other hand there are 23 contributions on feed additives, 24 on other topics and 36 about feedstuff evaluation and feeding. That means that more than 50% of all presentations belong to these three topic groups.

The Communications of the Committee for Requirement Standards of the Society of Nutrition Physiology deal with:

- Equations for predicting metabolisable energy (ME) and digestibility of organic matter in forage legumes for ruminants (8 p., in English and German). The Committee recommends the use of two alternative equations for predicting the digestibility of organic matter in forage legumes. Both the enzyme soluble organic matter and the gas production should be used for calculations. Further details are described in the report.
- Statement on the energy evaluation of feeds for pigs based on ME versus net energy (8 p., in English and German). In this statement on the energy evaluation of feeds for pigs based on ME energy versus net energy, the Committee

concludes that there is no reason from the scientific perspective or from the perspective of pig feeding practice to convert from ME to one of the existing net energy systems. According to current knowledge, ration formulation based on ME is therefore regarded as the best practice.

- Statement on the essentiality of animal experiments and about the suitability of replacement methods in animal nutrition research (7 p., in German). The Committee underlines that animal experiments are necessary for further progress in animal feeding and animal physiology. The numbers of experiments and the stress for experimental animals should be minimized and more animal replacement methods should be developed.

The Proceedings of the 71st Annual Meeting of the Society of Nutrition Physiology 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, but also in feed science.

The Proceedings of the 71st Meeting (Vol. 26, 2017) are available from the DLG-Verlag, Eschborner Landstraße 122, 60489 Frankfurt am Main, Germany.

The next meeting of the Society of Nutrition Physiology of Germany (the 72nd) will take place in Goettingen from March 13–15, 2018.

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