



Nutritional and Metabolic Regulation of Dairy Cow

Guest Editors:

Dr. Ewa Pecka-Kielb

Department of Biostructure and
Animal Physiology, Wrocław
University of Environmental and
Life Sciences, Norwida Str. 31, 50-
375 Wrocław, Poland

Prof. Dr. Andrzej Zachwieja

Institute of Animal Husbandry
and Breeding, Wrocław University
of Environmental and Life
Sciences, Chłmońskiego Str. 38c,
51-630 Wrocław, Poland

Dr. František Zigo

Department of Nutrition and
Animal Husbandry, University of
Veterinary Medicine and
Pharmacy, Komenského 73, 041
81 Košice, Slovakia

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Message from the Guest Editors

The result of breeding work is a significant improvement in the performance characteristics of dairy cows. However, the increase in their productive capacity results in higher demands on housing and feeding conditions, which farmers are unable to meet. Due to the difficulties in properly balancing feed rations, the incidence of metabolic disorders increases, especially during the drying-out period and early lactation. Metabolic disorders limit the physiological capacity of the animals, worsening the physicochemical characteristics of the colostrum and milk produced, which reduces the quality and technological suitability of raw milk and affects the efficiency of calf rearing.

Climate change is leading to a potential reduction in the availability of feedstuffs, prompting a search for alternative plants and feed components that may be effective in the feeding of dairy cows.

Rumen fermentation processes and their products guarantee the proper functioning of the animals, their metabolism, health, and productivity. A non-invasive way to observe rumen processes and verify the impact of new ration solutions for dairy cows is in vitro analysis.





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Editor-in-Chief

Prof. Dr. Les Copeland

Sydney Institute of Agriculture,
School of Life and Environmental
Sciences, The University of
Sydney, Sydney, NSW 2006,
Australia

Message from the Editor-in-Chief

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Agriculture Editorial Office
MDPI, Grosspeteranlage 5
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