



## Nutritional and Metabolic Regulation of Dairy Cow

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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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## Message from the Editor-in-Chief

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