

# Prof. Edna Hillmann

Faculty of Life Sciences

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Animal husbandry systems and ethology

## Expertise

Professor Hillmann's research focuses on the influence of husbandry conditions and management practices on the welfare of farm animals. Her research in the area of animal welfare ranges from the validation of animal welfare indicators, including animal health, to the practical implementation of animal welfare measures.

Hillmann and her team concentrate on animal behavior. In addition, they use information on animal health, such as (stress)-physiological variables and economically relevant characteristics (e.g., meat quality).

Ethical and legal considerations also play a role in her research. However, practical problems in animal husbandry are in the foreground. Besides classical behavioral observations, often with the help of video recordings, stress-physiological, clinical and cognitive parameters are added, but also techniques for automated recording of animal behavior.

Many problems in animal husbandry are related to a disturbance in behavioral control. Professor Hillmann's basic research in behavioral control thus also leads to solutions of practically relevant behavioral problems in farm, pet, laboratory, and zoo animals. Such solutions work at the roots of the problems because they are based on causal understanding of the underlying control mechanism.

In both application and basic questions, the measurement and consideration of the animals' emotion plays a critical role as a component in the control of behavior, as well as in relation to their welfare.

Her research thus moves in the area of tension between scientific/clinical basic research, application and questions from the fields of agricultural economics and social sciences.

## Scientific Services

- Equipment for behavioral observation (video/3D acceleration)

## Testimonials

- NaTiMon (BMEL): Development of basic principles for regular, indicator-based monitoring and reporting on the status of animal welfare of sheep and goats in Germany, as well as its change over time. This animal welfare monitoring is intended to take into account the various dimensions of animal welfare at the relevant stages of the animals' lives (husbandry, slaughter, transport)
- PanSens (Agricultural Pension Bank): The object of the sub-project is the application of the reference system for standing and lying times, the basic validation of the parameters movement activity and standing and lying times, and the scientific monitoring of the development work and the iteration for the detection of specific cow diseases. Practice partner: dropnostix GmbH

## Continuing Education

- Education and training for animal experimenters (selective)



## Topics / Trends

Animal Husbandry & Animal Welfare  
Health  
Sustainability & Ressource Efficiency  
Food  
Consumer Protection  
Value Chains

## Industries

Agriculture & Food  
Healthcare & Life Sciences  
Information & Communication  
Technology

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