



ID der Kurzfassung : 210

Innovative Barn Design and Decontamination Strategies for Open Barn Systems in Swine and Poultry Husbandry

Inhalt

The ongoing threat of zoonotic pandemics, exemplified by outbreaks of avian influenza, for example in Europe and North America, underscores the persistent risk of future pandemics originating from animal husbandry. In order to mitigate pathogen transmission in and out of animal husbandry, numerous biosecurity measures are implemented on farms. However, with an increasing consumer demand for more animal welfare, open systems become more important. These systems, characterized by fresh air and outdoor access, facilitate greater environmental exchange, potentially increasing the risk of pathogen entry and dissemination, particularly for airborne viruses. In addition, some biosecurity measures are less effective or more difficult to implement in open housing systems.

Within the framework of the Leibniz Lab Pandemic Preparedness, we therefore focus on possible prevention strategies for pathogen spread in open swine and poultry housing. In a first step, we analyze existing innovative barn design options enhancing biosecurity, e.g., options that allow easier cleaning, animal isolation and the prevention of wildlife contacts. Additionally, we focus on novel decontamination methods suitable also for outdoor areas.

Subsequently, recommendations for suitable structural and decontamination measures, based on costs, effectiveness and effort, will be given to assist policymakers, stakeholders, and farmers in selecting optimal biosecurity strategies to prevent the transmission of potentially pandemic pathogens in open husbandry systems.

Keywords

biosecurity, open animal husbandry, barn design, decontamination

Registration ID

OHS25-45

Professional Status of the Speaker

Postdoc

Junior Scientist Status

Yes, I am a Junior Scientist.

Track Klassifizierung: Pandemic Preparedness & Prevention

Typ des Beitrags: Poster presentation