

# Pathogens Beyond the Animal: Environmental Drivers of Disease in Livestock Systems

**FEBRUARY 20, 2026**

2:30 PM ET, 1:30 PM CT,  
12:30 PM MT, 11:30 AM PT

This webinar examines the role of the environment in livestock disease risk and surveillance. **Presentations will explore the association between manure-handling activities and PRRSV outbreaks in wean-to-market swine, as well as the use of environmental sampling to better understand pathogen distribution on HPAIv-infected egg-layer farms.** Together, these studies highlight how environmental data can inform biosecurity practices, disease monitoring, and future research applications in livestock production systems.

*An application for continuing education credit for Certified Crop Advisors (CCAs) and members of the American Registry of Professional Animal Scientists (ARPAS) will be submitted.*

### Additional Information

- Associations between manure pumping out of the site & exposure to nearby manure applications with the incidence of PRRSV and PEDV outbreaks in wean-to-market pig populations in the Midwestern United States  
<https://doi.org/10.3389/fvets.2025.1595313>

**Leslie Johnson** is an Animal Manure Management Extension Educator at the University of Nebraska. Leslie's role includes facilitating the development of articles for [manure.unl.edu](http://manure.unl.edu). **She manages the online manure course and annual manure trainings across the state of Nebraska, as well as other manure programming in the state.** Leslie also serves on the leadership team and as a webinar co-coordinator for the Livestock and Poultry Environmental Learning Community. In addition, Leslie serves on the leadership team for the Soil Health Nexus regional workgroup. She will serve as the moderator for the webinar.  
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**Leslie Johnson**  
University of Nebraska

**Dr. Mickey Leonard** has been a researcher with the Secure Food Systems team at the University of Minnesota since 2020. Prior to that, she worked for 6.5 years at the University of Minnesota Veterinary Diagnostic Laboratory, where she first encountered both routine and foreign animal disease testing and response strategies. She received her master's degree in animal science with a focus on applied poultry sciences from the University of Minnesota. **Her research focuses on biosecurity and assessing risks related to Highly Pathogenic Avian Influenza.** Email: [leona314@umn.edu](mailto:leona314@umn.edu)



**Mickey Leonard**  
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**Ana Paula Serafini Poeta Silva**  
Iowa State University

**Dr. Ana Paula Serafini Poeta Silva** is currently a research scientist at Iowa State University. Dr. Silva obtained her DVM and MS in Veterinary Medicine and Epidemiology in Brazil, and a PhD in Population Animal Medicine at Iowa State University. **Dr. Silva coordinates the PRRS Outbreak Management Program (<https://fieldepi.org/pomp/>) and has active research and extension activities focused on identifying PRRSV outbreak impacts in the swine population.** Email: [apsilva@iastate.edu](mailto:apsilva@iastate.edu)



**Matthew Nonnenmann**  
University of Nebraska

**Dr. Matthew Nonnenmann, PhD, CIH** is an industrial hygienist specializing in the measurement and control of dust and bioaerosols. He joined the University of Nebraska Medical Center (UNMC) in 2023 and is a professor in the Department of Environmental, Agricultural, and Occupational Health in the College of Public Health. **His research focuses on advancing exposure assessment, characterization, and control of bioaerosols to protect public health.** Dr. Nonnenmann has 30 years of experience as an industrial hygienist in the agricultural and health care sectors, primarily funded by the Centers for Disease Control and Prevention, and directs the NIOSH-funded Central States Center for Agricultural Safety and Health. Email: [mnonnenmann@unmc.edu](mailto:mnonnenmann@unmc.edu)

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## Livestock and Poultry Environmental Learning Community

The LPELC is a project dedicated to the vision that individuals involved in public policy issues, animal production, and delivery of technical services for confined animals systems should have on-demand access to the nation's best science-based resources. See our website at: [lpec.org](https://lpec.org)

