



Pathogens 101: Manure and Veterinary Pathogens of Concern, Who are they and what do they do?

December 16, 2016

2:30 pm (eastern), 1:30 pm (central), 12:30 pm (mountain), 11:30 am (pacific)

The movement of bacteria and viruses from AFOs, municipal waste water, septic systems, and wildlife continues to complicate water, soil, and food quality throughout the country and world. Though much has been learned in recent years, misconceptions and unknown areas still abound. This webinar will serve as an overview of bacteria, viruses, and parasites found in manure and other land-applied wastes as well as pathogens of veterinary concern. This will be an overview of these pathogens, who they are, how they affect you, their typical levels in manure and wastes, veterinary concerns, and overall prevalence in the environment. *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.*



Lisa Durso is a Research Microbiologist working with the Agricultural Research Service in Lincoln, Nebraska. Her current program focuses on solving applied problems related to pathogens and antibiotic resistance in manure-impacted and natural settings. Dr. Durso began her scientific career working for state and federal public health agencies, and has been working in agriculture since receiving her Ph.D. She has over 15 years of experience implementing practical solutions related to pre-harvest foodborne pathogens, water quality, and microbes in manure. Her areas of expertise include microbial ecology of agricultural production systems, and tracking manure-borne bacteria- including routine surveillance and outbreak investigations. Email: Lisa.Durso@ars.usda.gov; Website: <https://www.ars.usda.gov/plains-area/lincoln-ne/agroecosystem-management-research/people/lisa-durso/>

John Brooks graduated from University of Texas at El Paso with a B.S. degree in Microbiology & Immunology, which was followed with his graduate studies at the University of Arizona where he earned his Ph.D. in Environmental Microbiology. Currently he is a research microbiologist at the USDA-ARS Genetics and Precision Agriculture Unit at Mississippi State University and graduate faculty with the university. He is the principal investigator of the Environmental Microbiology laboratory at his location. His research foci include: fate and transport of bacterial pathogens in the environment, microbial ecology, and quantitative microbial risk assessment. Phone: (662) 320-7411; Email: John.Brooks@ars.usda.gov; Website: <https://www.ars.usda.gov/people-locations/person/?person-id=40050>



Dr. Loy received his DVM and PhD from Iowa State University and is a board certified diplomate of the American College of Veterinary Microbiologists. He is the faculty supervisor for the Nebraska Veterinary Diagnostic Center's bacteriology and molecular diagnostic sections, where he also serves as a diagnostician serving veterinarians throughout Nebraska and the US. He serves as an instructor for microbiology and public health in both undergraduate and professional courses in the UNL veterinary program. His research focuses on respiratory and ocular pathogens of cattle and enteric pathogens of swine. Phone: (402) 472-8468; Email: jdloy@unl.edu; Website: <http://vbms.unl.edu/john-dustin-loy>

How Do I Participate?

On the day of the webcast, go to www.extension.org/58813 to download the speaker's power point presentations and connect to the virtual meeting room. First time viewers should also follow the steps at: www.extension.org/8924.

For More Information

- * Foodborne Germs and Illnesses <http://www.cdc.gov/foodsafety/foodborne-germs.html>
- * Manure Pathogens and Microbial Byproducts <http://articles.extension.org/70212>