Phosphorus Management Lessons Learned from the Field

December 13, 2019

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

Management of phosphorus in agriculture continues to challenge the sustainability of animal feeding operations. Three Extension and research leaders for phosphorus management issues will share their experience with us on critical lessons learned about phosphorus management.

- Phosphorus and Soil Health Management: Are They Compatible? Soil health has gained widespread attention in conservation communities due to its many purported benefits, including claims that implementation will improve water quality by curtailing runoff losses of nutrients such as phosphorus (P). However, a review of the existing literature points to well established findings suggests trade-offs. This summary will describe those trade-offs and important management strategies for minimizing those trade-offs.

- Arkansas Discovery Farm Experience for Managing P in Poultry. The Arkansas Discovery Farm Program is a public-private partnership between the University of Arkansas System Division of Agriculture and private landowners. The program engages farmers, works with them on-farm and within their management system to develop solutions to water quality and other natural resource issues. The program will focus on solutions for managing phosphorus in poultry systems.

- Field Experiences with Manure P - A Lake Erie Basin Perspective. Agricultural practices are a significant contributor to algae blooms in Lake Erie. Kevin King will summarize field experiences and lessons learned for mitigation of phosphorus movement from land application sites and their value for future mitigation of Lake Erie’s water quality challenges.

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.

How Do I Participate?
On the day of the webinar, go to lpelc.org/live-webinar-information/ to download the speaker’s power point presentations and connect to the virtual meeting room. First time viewers should also follow the steps at lpelc.org/how-do-i-participate-in-a-webcast/.

For More Information
- Arkansas Discovery Farms https://aaes.uark.edu/centers-and-programs/discovery-farm-program/
- Phosphorus and Soil Health Management Practices
  https://dl.sciencesocieties.org/publications/ael/abstracts/4/1/190014

The LPE Learning Community is a project dedicated to the vision that individuals involved in public policy issues, animal production, and delivery of technical services for confined animal systems should have on-demand access to the nation’s best science-based resources. See our website at lpelc.org.
About The Presenters

**Deanna Osmond** is a Professor and Soil Science Department Extension Leader in the Department of Soil Science at NC State University in Raleigh, NC. Her focus areas include Soil Fertility, Nutrient Management, Conservation Practices and Water Quality. Her research is focused on agricultural production, reduction of agricultural pollutants through the use of conservation practices including riparian buffers and the development of decision support systems that both function at the watershed-scale and are applicable to field-scale soil fertility issues. These systems are designed to allow maximum user flexibility, yet to provide reliable information and answers. Email: dosmond@ncsu.edu

**Kevin King** works for the USDA Agricultural Research Service as a Research Leader and Agricultural Engineer. His research is focused on understanding the complex watershed scale interactions of weather, soil, water, plants, and land use management on hydrologic processes and their relation to water chemistry. His work includes characterizing the field and watershed scale environmental aspects of crop production practices, evaluating conservation management practices and technologies for their delivery of sediment and nutrients, and conducting integrated drainage management research. Email: kevin.king@usda.gov

**Mike Daniels** is a Professor of Extension – Soil and Water Conservation and Associate Department Head for Extension in the Crop, Soil, and Environmental Sciences Department at the University of Arkansas Division of Agriculture. He co-directs the Arkansas Discovery Farm Program, which focuses on addressing soil and water-related issues facing Arkansas agriculture by conducting applied research in characterizing, quantifying and reducing agriculture’s footprint on water resources. He also develops educational and training programs for water quality and nutrient management. Email: mdaniels@uaex.edu

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