



Livestock and Poultry Environmental (LPE) Learning Center:  
Educational Webcast Series  
<http://www.extension.org/animal+manure+management>

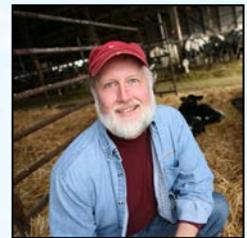
## Capturing Valuable Nutrients from Manure: Part 2

### December 13, 2013

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

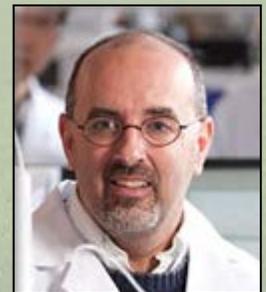
This month we will continue our 3-part series of webcasts on nutrient capture from manure. The focus of part two will be on experiences with nutrient capture in Michigan, capture of phosphorus from liquid dairy manure in Washington State and Maryland, and nitrogen capture in Washington State and Wisconsin. *An application for continuing education credit for Certified Crop Advisors (CCAs) and members of the American Registry of Professional Animal Scientists (ARPAS) has been submitted.*

**Dr. Joe Harrison** is a faculty member of the Department of Animal Sciences at Washington State University and has been conducting research and demonstration projects related to anaerobic digester technology since 2005. His projects include: fate and transport of bacteria from anaerobically digested manure (including the impact on surface water quality), utilization of nutrients in AD effluent for production of grass forage, production of a phosphorus based fertilizer (struvite) from anaerobically digested manure, development of an economic decision aid tool for predicting the financial risks associated with community based ADs that utilize pre-consumer food-wastes, and the effect of AD on odor and gaseous emissions. Phone: (253) 445-4638; Email: [jhharrison@wsu.edu](mailto:jhharrison@wsu.edu)



**Dr. Dana Kirk** is a faculty member in the Department of Biosystems and Agricultural Engineering at Michigan State University and a licensed professional engineer in the State of Michigan. He is the manager of the MSU Anaerobic Digester Research and Education Center (ADREC). The ADREC is collaborative effort between the University and a private foundation to provide a continuum of research, professional development and outreach support for waste-to-energy systems. In addition to managing the ADREC, he also oversees design, construction and operation activities of the university's two commercial scale anaerobic digesters. Phone: 517.432.6530, Email: [kirkdana@msu.edu](mailto:kirkdana@msu.edu)

**Dr. Craig Frear** is a faculty member of the Department of Biological Systems Engineering at Washington State University. His research focus is on development of anaerobic digestion and nutrient recovery systems associated with the treatment of organic wastes, particular animal manures and municipal solid wastes. Other research interests involve the development of biological and chemical technologies for production of high value products from organic wastes. Dr. Frear also provides a large fraction of his time towards biofuels and bioenergy extension, working closely with government agencies and industries to help further development of renewable energy projects and implementation of a bio-economy. Phone (509) 335-0194; Email: [cfrear@wsu.edu](mailto:cfrear@wsu.edu)



### How Do I Participate?

On the day of the webcast, go to [www.extension.org/58813](http://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](http://www.extension.org/8924).

The LPE Learning Center 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: <http://www.extension.org/animal+manure+management>.