



## Construction and Maintenance of a Manure Pond– Part 2

February 19, 2016

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

Manure ponds have gained much attention recently with regard to their being protective of the environment. This webcast will conclude the 2-part series on manure pond liners that began in January and will discuss a system to detect seepage rate from manure ponds and a system to detect leaks in manure ponds. *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.*

**Richard L. Burns** has 30 years professional experience as an environmental consultant and business strategist. He has planned and implemented projects relating to water resources, waste management, agriculture, renewable energy, and related market assessments and valuations. Rick has extensive experience designing and permitting waste disposal and processing facilities, including: landfills transfer stations, material recovery plants, and CAFOs, throughout the US and internationally. Phone: (248) 662-2739; Email: [rburns@nthconsultants.com](mailto:rburns@nthconsultants.com)



**Michael A. Olson, P.E.** is a founder and president of Abletech Technologies LLC, specializing in environmental and meteorological instrumentation and control systems. Mr. Olson has nearly 30 years of diverse professional experience, with specialization in waste containment system design, construction and monitoring at RCRA and CERCLA sites, as well as large-scale mineral processing facilities. He has worked on projects throughout the United States and internationally, particularly Canada and South America. He holds patents related to environmental control technologies that are in service at numerous facilities nation-wide. He holds a BS in Mining Engineering from Michigan Technological University. Phone: (734) 677-2420; Email: [mo@abletech.com](mailto:mo@abletech.com)

**Dr. Bryan Woodbury** is a Research Agricultural Engineer with the USDA-ARS at the U.S. Meat Animal Research Center near Clay Center, NE. He has been conducting research related to reducing the impact of animal feeding operations on the environment. His projects include: developing and evaluating the effectiveness of alternative feedlot runoff control using vegetative treatment systems, determining the impact of animal manure as a fertilizer amendment on soil physical, chemical and biological properties, application and evaluation of alternative feedlot pen surface materials on manure energy recovery and environmental sustainability, determining the transport and fate of antimicrobials through feedlot production systems and characterizing the spatial variability within a pen and the climatic impact on odor and greenhouse gas emission from feedlot pens and land applied manure. His most recent work has been collaborative effort developing the use of geophysical tools like resistivity arrays as an early-warning system for detecting unintended subsurface discharge from wastewater holding basins. Phone: (402) 762-4275; Email: [bryan.woodbury@ars.usda.gov](mailto:bryan.woodbury@ars.usda.gov).



### 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).

### For More Information

\* NRCS national conservation practice standards webpage:

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/cp/ncps/>