



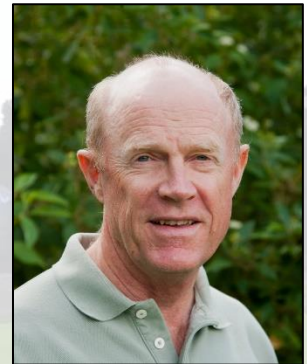
## Determining Causes of Deep-pit Swine Manure Foaming Issues and Potential Mitigation Strategies

March 16, 2018

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

As early as 2006, there have been incident reports of explosions, fires, and/or blue flames moving across manure surfaces in deep-pit swine facilities. In 2010, major explosions occurred damaging buildings from melted pipes to complete 100% loss. A task force of nine states in the upper Midwest held monthly conference calls to assess and plan strategies to determine the causes of these flash fires and possible mitigation solutions. Over the last five years, a major collaborative research project funded by the Iowa Pork Producers Association to understand and mitigate the causes of foam has been conducted by Iowa State University, University of Illinois, and University of Minnesota. Substantial new information has been learned about the foaming process, its potential causes, and the different methods of addressing it. That information will be briefly shared. *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.*

**Dr. Chuck Clanton**, PE, has been on the faculty at the University of Minnesota for 38 years with a classroom teaching and research appointment. His interests deal with environmental issues associated with animal and livestock production systems. He received his Ph. D. from the University of Minnesota in 1985. He is also a member of the American Society of Agricultural and Biological Engineers, the American Society of Animal Science, the Council for Agricultural Science and Technology, the American Society for Engineering Education, and the National Society of Professional Engineers in addition to being a licensed Professional Engineer and Soil Scientist in Minnesota. Phone: 612-625-9218; Email: [cjclanton@umn.edu](mailto:cjclanton@umn.edu)



**Dr. Dan Andersen** is an assistant professor and extension specialist in the agricultural and biosystems engineering department at Iowa State University. As part of his work he researches alternatives for manure storage, treatment, and land application and uses this applied research to develop and deliver extension programming on manure management. His recent work has focused on addressing and diagnosing the causes of foam on the surface of swine manure storages and in developing innovative metrics for improved evaluation of manure management systems. He received his Ph.D. in Agricultural Engineering from Iowa State University in 2012. Phone: 515-294-4210; Email: [dsa@iastate.edu](mailto:dsa@iastate.edu)

### How Do I Participate?

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