

## Q&A

- **U.S. EPA:** Along the lines of vectors, is there a concern about smaller vectors? Insects and birds? Can they transmit the disease?
  - **Gary Flory:** Yes, those are concerns, and those are questions we need to answer. In our project in Oklahoma, we are involving an entomologist and have insect traps set up for flying and crawling insects. We did baseline sampling for those insects, installed our burial system, and are analyzing additional insect samples while our burial system is in place. We are looking at species differences as well as whether the virus is present there. We are collecting those data now.
- **U.S. EPA:** Can you talk about the times and temperatures of above ground burial compared to composting?
  - **Gary Flory:** Composting is a process where we are very intentional about getting the ideal number of bacteria into the pile. But that is a different subset of bacteria than we want to use/harvest for the above ground system. We add carbon material, but the bacteria we use in the above ground system are not thermophilic bacteria – they are mesophilic bacteria. They are happy in that environment, but don't generate the same heat that composting bacteria do.
- **Pacific Northwest National Laboratory:** Are you conducting any microbiome studies? Finding particular sites that are more productive, where we could optimize conditions?
  - **Gary Flory:** We are not doing those studies, but we want to. We also really want to answer some of these questions working with avian swine flu and finding ways to make that happen.
- **U.S. EPA:** Is there any separate study on whether some proteins from the thermophilic bacteria attack the virus protein? It could be a combination of effect.
  - **Gary Flory:** For composting, we measure time and temperature, but that is just an indicator of a vast number of factors going on that inactivate the pathogen (e.g., ammonia levels). But no, I am not aware of any studies looking at the actual mechanism of inactivation.