Prevalence and levels of STEC and *Salmonella* in cattle and poultry raw manure in different geographical regions

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Methods

• Cattle (dairy, beef) and poultry (layer, broiler) farms and composting facilities were enrolled confidentially in each region.

• A modified stratified method is being used to collect representative samples of each manure pile including “pile toe” composites from the edge where temperatures may not achieve sufficient thermal kill ($n=2$) and “pile gut” composites from different depths within the pile ($n=5$). Each location is sampled twice (spring/summer, fall/winter).

• Standardized methods were developed and validated for this study to detect and enumerate (Most Probable Number, MPN/g) STEC and *Salmonella* in cattle and poultry manure, respectively.
Stacked mixed raw cattle and shavings at a Northern CA small dairy farm (left); “pile gut” cut-outs from manure solids at a dairy farm in Delaware (Center); sampling raw cattle (feedlot) manure delivered for windrow composting in southern Arizona (right).
Preliminary Data on the Prevalence and Concentration of Shiga toxin-producing Escherichia coli in Bovine Manure in Florida
Christopher A. Baker, Bruna Bertoldi, Ploy Kurdmongkoltham, Laurel Dunn, Travis Chapin, Jaysankar De, Michelle D. Danyluk, Keith R. Schneider

Manure Pathogen Survey of Salmonella and Shiga Toxin Producing Escherichia coli in Untreated Poultry and Cattle Manure of the Mid-Atlantic Region
Samantha Gartley, Thais De Ramos, Esmond Nyarko, Tenille Souza, Michele T. Jay-Russell, Yuhuan Chen, Paula Rivadeinera, Regis Pouillot, Pieman Aminabadi, Rebecca Bell, David Oryang, David T. Ingram, Jane M. Van Doren, and Kalmia E. Kniel

Prevalence and Levels of STEC and Salmonella in Untreated Cattle and Poultry Manure in the West Coast of United States
Michele T. Jay-Russell, Yuhuan Chen, Paula Rivadeneira, Régis Pouillot, Peiman Aminabadi, Rebecca Bell, David Oryang, David T. Ingram, Kali Kniel, Jane M. Van Doren

Molecular Characterization of STEC and Salmonella isolates from Untreated Cattle and Poultry Manure Sources at Livestock Farms and Composting Facilities in the Western United States
Michele T. Jay-Russell, Rebecca Bell, James Pettengill, Paula Rivadeinera, Peiman Aminabadi, David T. Ingram, Hugh Rand, Pramod Pandey, Jane M. Van Doren, and Yuhuan Chen