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Research Shows Vertical Transmission of Salmonella Reading in Breeders

USPOULTRY and the USPOULTRY Foundation announce the completion of a funded research project by researchers at Mississippi State University that shows the vertical transmission of *Salmonella* Reading in breeders. The research was made possible in part by an endowing Foundation gift from Cargill. The research is part of the Association's comprehensive research program encompassing all phases of poultry and egg production and processing. A summary of the completed project is below.

Project #729: Evaluating Vertical Transmission of *Salmonella* Reading Outbreak Strain in Turkeys Using Bioluminescent Imaging

(Dr. Li Zhang, Poultry Science Department, Mississippi State University, Mississippi State, Miss.)

Dr. Li Zhang and others at Mississippi State University completed a research project with the objective of identifying the potential of bioluminescent *S*. Reading outbreak and non-outbreak strains to colonize the reproductive tissues of breeder hens following experimental infection and vertically transfer from hens through eggs. Bioluminescence technology is a highly effective non-invasive tool that can allow one to view colonization of bioluminescent bacteria in internal organs and track its transmission following live bird challenge. Findings showed the ability of *S*. Reading to colonize reproductive tissues of breeder hens as well as vertically transfer to eggs.

The research summary can be found on the USPOULTRY website. Information on other Association research may also be obtained by visiting the USPOULTRY website, uspoultry.org.

About USPOULTRY

U.S. Poultry & Egg Association (USPOULTRY) is the All Feather Association progressively serving its poultry and egg members through research, education, communications and technical services. Founded in 1947, USPOULTRY is based in Tucker, Georgia.

About USPOULTRY Foundation

The USPOULTRY Foundation's mission is to support the recruitment and training of the brightest students, seek and fund scientific research, foster student scientists and promote careers in the poultry and egg industry.