

Title: Vaccination to Prevent Acute Infection by Salmonella in Transport and Lairage Prior to Slaughter - **NPB#02-119**

Investigator: D.L. Harris

Institution: Iowa State University

Date Received: September 2, 2003

Abstract: Two transmission models were utilized to determine if rapid dissemination of Salmonella Typhimurium in pigs could be prevented by either live avirulent vaccines or spray-dried plasma. The 2 models were: (1) intranasal inoculation of a high dose of S. Typhimurium and (2) natural transmission of the organism by contamination of the pen environment with Salmonella infected seeder pigs. These models mimic an important mode of pork contamination which occurs during transport and lairage immediately prior to slaughter.

Avirulent live vaccines for the prevention of disease caused by Salmonella Choleraesuis did not protect pigs against the rapid dissemination of S. Typhimurium in either model. Spray-dried plasma did not protect pigs against S. Typhimurium using model 1. Live avirulent vaccines are likely effective in decreasing the level of Salmonella in tissues at slaughter (based on previously reported field investigations); however, this effect occurs during the finisher phase of production, not during transport and lairage.

These research results were submitted in fulfillment of checkoff funded research projects. This report is published directly as submitted by the project's principal investigator. This report has not been peer reviewed

For more information contact:

National Pork Board, P.O. Box 9114, Des Moines, Iowa USA

800-456-7675, **Fax:** 515-223-2646, **E-Mail:** porkboard@porkboard.org, **Web:** <http://www.porkboard.org/>