

PORK SAFETY

Title: Prevalence and Levels of *Salmonella* spp. on Retail Pork Cuts – **NPB #06-186**

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Scientific Abstract:

Overall purpose of this study was to determine the prevalence and levels of *Salmonella* spp. on retail pork products to better understand the impact of pathogen control practices at the processing level, and further, the overall risk of retail pork associated salmonellosis.

A total of 4,000 retail pork samples collected from 4 locations in the Midwestern and Southwestern United States, including Green Bay, WI, San Antonio, TX, Dallas, TX, and Phoenix, AZ, were analyzed for the presence and levels of *Salmonella* spp. using the PCR-BAX[®] System and USDA-FSIS cultural methods. Four product types were assessed, including enhanced and un-enhanced (natural) pork chops and boneless pork roasts over 11 weeks from January – March, 2007. Enhanced products were preferentially sampled beginning on the 7th sampling week due to the absence of confirmed positive *Salmonella* spp. for the un-enhanced products tested.

Samples were initially screened as a composite of 5 samples each per product type for a total of 800 composites. Of the composites tested, 4.81% of all enhanced pork chop (n = 13/270) and enhanced roast samples (n = 13/270) were confirmed positive for *Salmonella* spp. Positive composite samples were further evaluated by re-sampling and analysis of the associated individual samples. Based on the total number of individual samples per product type, 1.33% of enhanced pork chop (n=18/1,350) and 0.74% of enhanced pork roasts (n=10/1,350) were confirmed positive for *Salmonella* spp. A most probable number (MPN) analysis was subsequently performed on all positive individual samples and revealed low levels of *Salmonella* spp. ranging from lower than the detection limit of <0.30 MPN/gram to 0.72 MPN/gram for enhanced pork chops and 1.40 MPN/gram for enhanced boneless pork roasts, respectively.

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