

PORK SAFETY

Title: *Salmonella* serovar distribution and persistence in finisher sites – NPB #12-069

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Date Submitted: 4/28/2014

Scientific Abstract:

The objective of this study was to describe the *Salmonella* serovar distribution on swine farms, compare persistence of different serovars in finishing swine and to identify management factors associated with *Salmonella* serovar persistence in swine. A study was carried out in one swine production system representing 900 pigs from 18 cohorts of finishing swine. The six most common serovars isolated from this farm were *S. enterica* serovar Derby (47.3%), *S. Agona* (27.4%), *S. Johannesburg* (10.5%), *S. Schwarzengrund* (2.7%), *S. Litchfield* (2.5%) and *S. Mbandaka* (2.2%). Pigs detected *Salmonella* positive for the first time at 10 weeks of age had a longer duration of shedding, than pigs first detected positive at an older age. The duration of shedding was shorter among pigs infected with *S. Derby*, *S. Johannesburg* and other serovars as compared to pigs infected with *S. Agona*. A significant difference was observed among sites despite belonging to the same production company. Cohorts with pig treatment proportions greater than the mean were more likely to have a shorter duration of *Salmonella* shedding. There was a significant influence of nursery status on duration of fecal shedding. Pigs from cohorts with nursery positive pools greater than the overall mean had a longer duration of *Salmonella* shedding as compared to pigs from cohorts with nursery pools less than or equal to the mean.

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 This report has not been peer-reviewed.

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