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TITLE

ASSESSMENT OF THE SALMONELLA STATUS IN 118 FARMS IN GERMANY FROM JANUARY 2015 TO JULY 2018

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CONTENT

Background and Objectives

Most Salmonella control programs focus on the assessment of serological prevalence at slaughter. To be able to implement an effective control program in the whole production chain, it is necessary to identify the Salmonella types circulating on farm. For this purpose sock and environmental swab samples were taken on 118 farms all over Germany.

Material & Methods

The number of socks and swabs taken on each farm depended on the size of the farm, with at least one sample taken in all stages of production. For each sample new gloves and overshoes were used in order to prevent cross contamination. The samples were analyzed for Salmonella spp. via microbiological culture. All detected Salmonella spp. strains were typed. An average of 12 socks and 10 swabs per farm resulted in a total of 1390 socks and 1214 swabs.

Results

On 106 farms (90%) Salmonella spp. was detected in at least one sample. 40% (n=554) of the socks and 28% (n=342) of the swabs were positive for Salmonella spp. In 53% of the farms only one serotype could be detected, in the other positive farms two or more serotypes could be found. Most frequently detected was Salmonella Typhimurium in 77%, followed by Salmonella Derby in 19% of all farms. The highest amount of positive samples could be detected in nursery (48%) compared to samples of farrowing units (18%) or fattening (27%).

Discussion & Conclusion

These results show that Salmonella control should start early in the piglet's life, as already farrowing units are positive for Salmonella. As in every disease, the nursery plays an important role in Salmonella control, as piglets of that age are very susceptible for infections. Each farm should know their Salmonella status based on the analysis of sock and environmental swabs via microbiological culture.