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OCCURRENCE OF *CRYPTOSPORIDIUM* IN SWEDISH PIGS

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Introduction

Cryptosporidium is a protozoan parasite that cause enteric disease in vertebrates, including the pig. Infected pigs may develop diarrhoea, anorexia and reduced growth rates, although most are asymptomatic. Previous knowledge on the occurrence of *Cryptosporidium* in Swedish pigs is scarce. As part of a larger study, occurrence of *Cryptosporidium* spp. and molecular species determination in Swedish farm animals, pigs were included.

Materials and Methods

A total of 100 faecal samples were collected from pigs at ten different farms including both conventional and organic farms. Pigs in the age groups 0-5 weeks (n=18), 6-12 weeks (n=33) and 13-24 weeks (n=49) were included. Samples were concentrated using glucose-salt floatation and analysed with FITC labelled *Cryptosporidium*-specific antibodies. Positive samples were analysed using PCR and sequencing of the 18S rRNA gene to determine species.

Results

In this study, we showed presence of *Cryptosporidium* spp. in pigs in 90% of the herds (9/10). In the age category 0-5 weeks, oocysts of *Cryptosporidium* were found only in one sample (<1%) and in low numbers (200 opg). In the age category 6-12 weeks, 17 of 33 (52%) samples were *Cryptosporidium* positive, with oocysts count ranging from 200 to 30 600 opg. In the category 13-24 weeks, 12 of 49 (24%) samples were positive with oocysts in the range from 200 to 5 200 opg.

Species determination showed *C. suis* and *C. scrofarum* in the studied herds, the latter being more prevalent. Two farms had both species present in the herd but no individual sample showed infection with both.

Discussion and Conclusion

The high occurrence of *Cryptosporidium* in the collected samples, with 90% of the herds being positive, warrants further studies to include more herds. No *Cryptosporidium* species of great zoonotic risk were found and the high occurrence is hence of low public health risk.

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