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RISK FACTORS FOR THE OCCURRENCE OF ANTIBODIES AGAINST TOXOPLASMA GONDII IN AUSTRIAN ORGANIC PIG FARMS AND PROSPECTS OF THEIR CONTROL

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Introduction

In Organic pig farms pigs are often exposed to various pathogenic agents that can cause important health problems. Aim of the study was to assess the prevalence of Toxoplasma (T.) gondii in organic fattening farms, to identify the risk factors and to develop strategies for control.

Material and methods

The study included 59 organic farms in Austria. A total of 1035 blood samples (about 17 per farm) were taken. All serum samples were tested for the presence of antibodies against T. gondii by ELISA. Additionally, in every farm a questionnaire including information about potential risk factors was filled in. By comparison of antibody positive and negative farms, risk factors were identified. The influence of them on the prevalence of antibodies against T. gondii was tested one year after the elimination of one of the basic risk factors.

Results

In 29 farms (51 %) antibodies against T. gondii were detected. The presence of cats on the farms had no significant influence on the prevalence of antibodies. The age of the respective cats, however, and the facts that the cats had access to the barns and the feed of the pigs had a significant influence on the prevalence. Farms with cats aged younger than one year were significantly more often T. gondii antibody positive. One year after the recommendation to reduce the risk factors, 23 of the positive farms were re-tested. 12 farms had remained T. gondii antibody positive, in the other 11 farms, no T. gondii antibodies were found in the sampled pigs.

Discussion and Conclusions

Fattening pigs raised in organic farms often have contact to zoonotic agents. Through simple measures like to restrict the access of cats to pig barns and to remove younger cats from the farms, the prevalence of antibodies against T. gondii could often be reduced.