

## 7. Summary

Investigation on the transmission of *Ascaris suum* by rats (*Rattus norvegicus*).

In this study the possibility of rats being paratenic hosts of *Ascaris suum* were examined. Therefore an infection of swine with *Ascaris suum* by infected rats should be provoked.

A group of 48 rats were experimentally infected with eggs of *Ascaris suum*. The rats were killed in different time intervals. They were examined for migrating larvae by digesting the organs and counting the developed larvae and by preparing histological cuts from liver and lung tissue. After that rats from one examination day were fed to two pigs in equal shares. The infection was proved when after slaughtering the pigs *Ascaris suum* could be isolated from the small intestine.

The infection could be shown in two cases within a time interval of around three weeks. Migration of larvae in rats could be seen over a period of at least 24 days. It seems to be impossible to infect pigs with *Ascaris suum* directly by feeding infected rats. The possibility of rats being transporting hosts for *Ascaris suum*, although, is relevant.

Even if the possibility to infect pigs with *Ascaris suum* this way is very low, it should not be neglected. The recurrence of ascaridosis even in farms with high quality management system and hygienic standards supports this theory.

Beside the adherence of a consequent herd and hygienic management, there must be paid attention to a strict rodent control.