7. Summary

Attempt of an eradication of sarcoptes-mange from a closed pig breeding farm in special regard to livestock performance

The aim of this study was to attempt a sustainable eradication of *Sarcoptes scabiei* var. *suis* infection in a closed pig breeding farm. The piggery was situated north of Berlin and included 1200 sows and 700 young pigs without hog feeding. The whole livestock was treated either by two injections (intramuscular, two weeks interval) of IVOMEC®-S-Injektionslösung or by feeding IVOMEC® Prämix for two weeks treatment with a one week break after 7 days. There was no environmental treatment of the hog house.

Naturally infected sows were examined before and after treatment for mange status as follows: investigation of typical dermatitis skin lesions, scratching index, detection of mites in ear cartilages and serologic investigation of *Sarcoptes scabiei* var. *suis* antibodies in blood and colostral samples.

Observation period for treatment control lasted up to 12 months. Direct detection of mange mites was negative after 4 months following treatment. Scratching index decreased immediately after treatment. Skin lesions slowly decreased after treatment and remained at a low level until the end of the observation period. Regarding the serological results in blood and colostral samples individual differences among the sows were found. Positive samples were detectable within six months (blood) and nine months (colostrum) after treatment.

After one year the whole livestock showed no symptoms of sarcoptic mange which indicates a successful eradication of *Sarcoptes scabiei* var. *suis* using ivermectin as injection and in the feed.