A longitudinal study of serological patterns of respiratory infections in nine infected Danish swine herds

Sixteen litters of seven pigs from each of nine Danish farrow-to-finish herds were followed to investigate the serological patterns caused by natural infection with Mycoplasma hyponeumoniae, Pasteurella multocida toxin and Actinobacillus pleuropneumoniae serotypes 2, 5-7, 12. In seven of the herds, pigs were followed as two separate cohorts started 4 weeks apart, and in two herds only one cohort was followed. A total of 999 pigs were included in the study. The pigs were blood sampled at weaning and subsequently every fourth week until slaughter. All pigs were examined for antibodies against M. hyponeumoniae (enzyme-linked immunosorbent assay), P. multocida toxin (enzyme-linked immunosorbent assay) and A. pleuropneumoniae serotypes 2, 5-7, 12 (complement-fixation tests). The most-common pattern (28%) of seroconversion was that of pigs first seroconverting to A. pleuropneumoniae serotype 2, followed by seroconversion to M. hyponeumoniae. Each herd had a dominant serotype of A. pleuropneumoniae to which most pigs seroconverted. Seroconversion to the respiratory pathogens occurred mainly in the growing-to-finishing units (8-24 weeks). The risk of seroconversion to the P. multocida toxin was very low (}

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