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EFFECT OF DIFFERENT GILT VACCINATION SCHEDULES ON COLONIZATION BY *MYCOPLASMA HYOPNEUMONIAE* DURING THE GILT ACCLIMATION PERIOD

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Introduction

Gilts are considered key in *Mycoplasma hyopneumoniae (Mhyo)* transmission. Vaccination during gilt acclimation may decrease shedding at farrowing, piglet colonization and, together with piglet vaccination, to diminish the impact of respiratory problems in fatteners. The aim of this study was to assess the effect of different gilt vaccination protocols during acclimation on the *Mhyo* colonization.

Material and Methods

An external batch of 180 *Mhyo* seronegative and PCR negative gilts were selected at 1 week post-entry (wpe) in the acclimation unit of a *Mhyo* positive farm. Gilts were divided into 3 groups (A, B and C). Group A was vaccinated intramuscularly with 2 ml of a commercial Mhyo vaccine (Hyogen®) at 2, 4, 6 and 8 wpe. Group B gilts received 2 ml of vaccine at 2 and 6 wpe and 2 ml of PBS at 4 and 8 wpe. Group C received 2 ml of PBS at every studied wpe. Laryngeal swabs (LS) and blood samples were taken at 14 wpe and were tested by rt-PCR and ELISA, respectively. Number of shedding and seropositive gilts by group were compared by Fisher's exact test.

Results

Number of shedding gilts in vaccinated groups A (1/60, 1.7%) and B (2/60, 3.3%) was significantly lower (p<0.05) compared to the non-vaccinated group C (27/60, 45.0%). Nevertheless, no statistical differences were found among the vaccinated groups with different number of doses. All gilts were seropositive (180/180, 100%) and no differences were detected.

Discussion and conclusion

Gilt vaccination reduces significantly the *Mhyo* gilt colonization and may represent an effective tool for decreasing the *Mhyo* infectious pressure in farms. Apparently, no differences were observed when using 2 or 4 vaccine doses in terms of Mhyo colonization at 14 wpe.

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