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TITLE

POSITIVE EFFECTS OF VACCINATION AGAINST ACTINOBACILLUS PLEUROPNEUMONIA (AP) AND OPTIMISED CO-INFECTION VACCINATION MEASURED ON AP RELATED LESIONS.

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CONTENT

Background and objectives

Vaccination scheduling forms an integral part of pig herd health plans and contributes largely to the reduction of antimicrobial use on farms in the United Kingdom.

The aim of this study was to reduce Ap related slaughterhouse pleurisy as the indicators of reduced growth and decreased feed efficiency in an Ap endemic farm co-infected with *Mycoplasma hyopneumoniae* (Mhp) via optimal vaccination. The study design comprises two steps: 1) implementing Ap prophylaxis, 2) optimizing Mhp vaccination, to reveal the contribution of each intervention.

Materials and methods

A 350 sow unit, not previously vaccinating against Ap, implemented a vaccination protocol with Coglapix®, vaccinating pigs at seven and nine weeks of age. Seven months later the farm changed from a competitor Mhp two shot vaccine at one and three weeks of age, to Hyogen® once at four weeks of age. The Ceva Lung Program (CLP) was used to assess Ap related lung lesions measured on extension by the pleurisy level and severity on the Ap Pleurisy Index, APPI, as previously described, during each of the vaccination protocols and a minimum of three analysis of ? 100 pigs each were completed for each period.

Kruskal-Wallis one-way analysis of variance used for statistical evaluation amongst groups.

Results

The pre-Ap prophylaxis plus competitor Mhp two shot period: pleurisy levels 64.3(a)% and APPI 1.72(a).

The Coglapix® addition plus competitor Mhp two shot period: pleurisy level 33.0(b)% and APPI 0.84(b).

The Hyogen® substitution plus Coglapix® period: pleurisy level 21.7(b)% and APPI 0.53(b).

(P<0.001 a, b in both pleurisy levels & APPI)

Discussion and conclusion

The results of this study demonstrate the significant importance of optimal control of both Ap and Mhp infections in co-infected farms, due to their mutually increased impact. Here demonstrated significant reductions on Ap induced lesions.