

# EFFECT OF A *MYCOPLASMA HYOPNEUMONIAE* VACCINE ON GROWTH PERFORMANCE IN SWINE

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## INTRODUCTION

*Mycoplasma hyopneumoniae* (M. hyo) is a common infectious pathogen in pigs and a major cause of economic losses to the swine industry. The main damages caused by M. hyo are the changes of the structure of the lungs at bronchial level, resulting in the increase in costs and a reduction of benefits for the farm.<sup>[1]</sup> The aim of this study was to assess the efficacy of a two shots M. hyo vaccine in a commercial pig farm in China, where two different vaccination protocols were used.

## MATERIALS AND METHODS

244 piglets were randomly divided into two groups: group A was immunized with a (non recommended vaccination programme) single dose inactivated M. hyo vaccine (MYPRAVAC® SUIS, HIPRA) at 1 week of age (n=127), and group B was immunized with a recommended double-dose of the same vaccine at 1 and 3 weeks of age (n=117). Both groups were monitored during the nursery stage, and individual pigs were weighed at the beginning of nursery and 34 days later. The survival rate, the feed conversion ratio (FCR) and the average daily weight gain (ADWG) were calculated at the end of the nursery stage.

## RESULTS

No differences were found in the average starting weight between the groups (6.0 kg in group A and 5.54 kg in group B). The animals in group B receiving two doses of the M. hyo vaccine showed a higher final weight at the end of the study period (16,34 kg versus 14,45 kg respectively).

On the figures 1, 2 & 3 you can see the results of both groups of vaccinated animals. Group A with a single dose and group B with the recommended 2 doses programme:

- The survival rate was 1,4% higher in the group B.
- Regarding the Feed Conversion Ratio, the results for the group B were lower than the group A (1,89 versus 2,38 respectively).
- And with respect to the average daily gain, the animals with the double shot grew 69 grams more per day than the single shot group (317,6 g versus 248,5 g).

Figure 1. Survival rate (%).

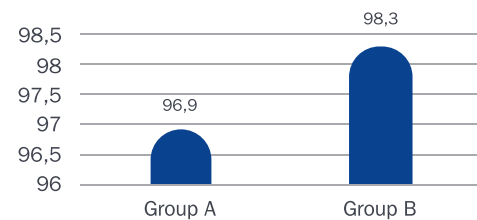


Figure 2. Feed Conversion Rate.

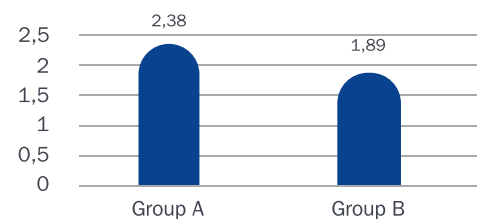


Figure 3. Average Daily Weight Gain (g).



## CONCLUSION

This study shows that the recommended program of a double dose of MYPRAVAC® SUIS compared with the single dose protocol exhibits better growth performance, higher survival rate, better average daily gain and a lower Feed Conversion Ratio.

## REFERENCES

- [1] Thacker EL. Mycoplasmal Disease. In: Straw, BE, Zimmermann JJ, D'Allaire S, Taylor, D. (Eds.). *Diseases of Swine*. Iowa State University Press, Ames, 2006. pp. 701-717.