

## **BBD-PP-05**

### **TITLE**

COMPARISON OF THE EFFICACY BETWEEN A ONE SHOT VACCINE AND A TWO-SHOT VACCINE AGAINST MYCOPLASMA HYOPNEUMONIAE ON THE RESPIRATORY DISORDERS AND THE GROWTH PERFORMANCES IN A FIELD TRIAL IN FRANCE.

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### **CONTENT**

Enzootic pneumonia (EP) caused by *Mycoplasma hyopneumoniae* (Mhyo) remains one of the major respiratory diseases of pigs leading to a degradation of the growth performances. Vaccination is commonly used around weaning and considered as the most efficient strategy to control EP. The aim of this trial was to compare the effect of a single shot vaccine with a two-shot vaccine against *Mycoplasma hyopneumoniae* in farm condition.

A farrow-to-finish farm of 300 sows, located in the West of France in a 5-batches management and with chronic coughs in fattening was selected for the trial. 530 piglets were randomly assigned into the two groups at one week of age and vaccinated either at four weeks of age (G1 = 229) with a one shot vaccine (Hyogen) or at one and four weeks of age (G1 = 239) with a two-shot vaccine. All pigs were kept under the same conditions. The efficacy of vaccination was evaluated through zootechnical parameters such as the Average Daily Gain (ADG) and mortality, associated with lung scoring using the CLP methodology.

The percentage of losses was 5.5% (13 pigs in each group). There was no statistical difference between the average Madec lung score (G1 = 1.9 versus G2 = 1.7). The percentage of healthy lungs was 52% and 56 % for G1 and G2 respectively (no statistical difference). Hyogen group showed less scars: 18% of lung affected against 26 % for the two-shot group (p-value = 0,07). The growth performances were similar between the two groups with an ADG of 791g.

In a challenging context, facing high pressure of pathogens (*Actinobacillus pleuropneumoniae* and Influenza virus) in the fattening period, the vaccination with a one shot vaccine (Hyogen) provides similar benefits in terms of respiratory health and growth performances than a two-shot vaccine while reducing the number of injections.