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# COMPARATIVE ASSESSMENT OF VARIOUS VACCINES AGAINST *MYCOPLASMA HYOPNEUMONIAE* IN COMMERCIAL PIG FARM

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#### Introduction

Enzootic pneumonia (EP) caused by *Mycoplasma hyopneumoniae* (M.hyo) remains one of the most important respiratory infections in current swine production with significant economical impact. High M. hyo prevalence was reported recently in Russia based on lung scoring and PCR examination. Vaccination belongs to the most efficient and profitable strategy to control EP. The aim of the study was to evaluate the efficiency of 5 different commercial M.hyo vaccines in comparison with Hyogen<sup>®</sup> (Ceva).

### **Material and Methods**

A farrow-to-finish farm of 6700 sows located in Leningrad region with the history of EP was selected for the trial. 5124 piglets were randomly assigned into the 6 groups and vaccinated either at 21-24 days of age (Groups G1-G5 by Hyogen<sup>®</sup> or vaccines A, B, C, D, E) or on D7 and D21 of life (G6 by vaccine F). All pigs were kept under the same conditions. The efficiency of vaccination was evaluated according to zootechnical parameters (ADG, FCR), mortality and lung scoring using the CLP methodology (Ceva). For each parameter a specific scale was used with the scale from 1 – best performance to 6 – worst performance to rank the vaccines.

## Results

The best performing group of pigs was the G2 (vaccinated with Hyogen<sup>®</sup>) with the overall score 13. The other evaluated groups were scored as follows: G1-31, G3-22, G4-26, G5-19 and the G6-26.

#### **Discussion and Conclusion**

The combination of performance indicators and lung score check is considered as a relevant way to assess the efficacy of M.hyo vaccines in the field condition. In this large scale study Hyogen<sup>®</sup> vaccinated pigs achieved the best performance compared to pigs vaccinated with any of the available one or two shot vaccines.