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TITLE

A FIELD TRIAL COMPARING THE EFFICACY OF TWO VACCINES AGAINST PCV2 AND MYCOPLASMA HYOPNEUMONIAE IN TERMS OF VIREMIA, LUNG LESIONS AND GROWTH PERFORMANCE

William Costa¹, Juliana Calveyra², Luciano Lunardi², Mauro Souza¹, Thaiza Barbosa¹, Divino Santana³, Roman Krejci⁴

¹ Ceva Animal Health Brazil

² Ceva Animal Health Latin America

³ Rio Branco Alimentos, Brazil, Patrocínio-MG

⁴ Ceva Animal Health France

CONTENT

Introduction

PCV2 and Mycoplasma hyopneumoniae are two of the most frequent pathogen of swine causing major economic losses. The efficient prevention requires a long lasting protection, which can be evaluated by scoring lungs at slaughter and by recording pigs' growth rate.

The aim of this trial was to evaluate the efficacy of a single shot vaccines, Circovac® & Hyogen® in comparison with a two shot vaccines on protection against PCV2 and Enzootic Pneumonia.

Materials and Methods

Three commercial pigs farms with 2000 sows each were selected for the trial. In total 3200 piglets were vaccinated with Circovac® and Hyogen® at 3 WOA(group G1) and 3200 piglets were vaccinated with Mhyo and PCV2 vaccine A at 3 and 6 WOA(group G2). Pigs' growth performance was recorded and the relevant economic impact was calculated using Respinomics™. Lung scoring was performed at slaughterhouse according to the Ceva Lung Program.

Results

Animals vaccinated with Circovac® and Hyogen® showed 34.28% of Bronchopneumonic lungs(BP) while animals vaccinated with vaccines A presented 41.22% of BP($p<0.05$). The EP-Index (calculated from the frequency and severity of EP-like lesions) was on average by 0.41 lower($p<0.05$) in G1 compared to G2. The scar scoring also had statistical difference between the vaccinated groups ($G1=8.44$, $G2=17.66$ $p<0.05$). From the zootechnical point of view, G1 had on average 16gr higher ADG($p>0.05$) compared to G2; 0.03 better feed conversion than G2($p>0.05$) and 0.16% lower mortality($p>0.05$). The profit in G1 was calculated using Respinomics™ application as 4.19€ per pig.

Conclusions and Discussion

The single dose vaccination with Circovac® e Hyogen® improved pigs' lung health and farm's profitability due to better growth performance. Despite zootechnical differences were not significant, the economic impact was extremely relevant, since a high amount of animals was evaluated. Moreover, it was less stressful for the pigs compared to the double shot vaccination.