

EFFECT OF MHYOSPHERE® PCV ID ON GROWTH PERFORMANCE UNDER FIELD CONDITIONS

Puig, A.[‡]; Moros, A.[‡]; Perozo, E.; Roura, F.; Montané, J.*; March, R.; Sabaté, D.

*Corresponding author (jordi.montane@hipra.com) [‡]Co-authors

HIPRA, Amer (Girona), Spain

BACKGROUND & OBJECTIVES

Mycoplasma hyopneumoniae (*Mhyo*) and Porcine circovirus type 2 (PCV2) are responsible for significant production and economic losses worldwide^{1,2}. The objective of the study was to evaluate the effect on growth performance of the new intradermal vaccine MHYOSPHERE® PCV ID under field conditions.

MATERIALS AND METHODS

Seven farms with *Mhyo* and/or PCV2 circulation in previous batches were included in a multicentre, randomized, negative-controlled and blinded field trial. In total, 2,507 healthy 3-weeks-old piglets were distributed between two groups balanced by weight before vaccination. One group (n = 1,253) was vaccinated with MHYOSPHERE® PCV ID, whilst piglets from the other group (n = 1,254) received a placebo. A single dose of 0.2 ml was administered to both groups intradermally using Hipradermic®. A total of 100 animals/group/farm were weighed at 3 weeks of age (w), 9 w and before slaughter. Growth performance was evaluated through average daily weight gain (ADWG), final body weight and culling rate before slaughter (< 75 kg).

RESULTS

Mhyo and/or PCV2 circulation was confirmed on all farms during the study. ADWG was higher in the MHYOSPHERE® PCV ID group from 3 w to the end of fattening (Table 1), with an improvement of 18 g/day ($p = 0.0004$, Linear Mixed Model considering the farm as a random effect).

Table 1. ADWG (± SEM) during different production periods.

Period	Placebo	MHYOSPHERE® PCV ID	p-Value
From 3 w to 9 w	363.27 ± 4.34	365.67 ± 4.31	> 0.05
From 9 w to end of fattening	744.37 ± 4.96	768.75 ± 4.36	< 0.0001
From 3 w to end of fattening	626.11 ± 4.05	643.72 ± 3.59	< 0.001

Consequently, at the end of the fattening period the mean body weight in the MHYOSPHERE® PCV ID group was significantly higher (Figure 1) than in the control group (difference of 2.61 kg; $p < 0.001$, Linear Mixed Model considering the farm as a random effect).

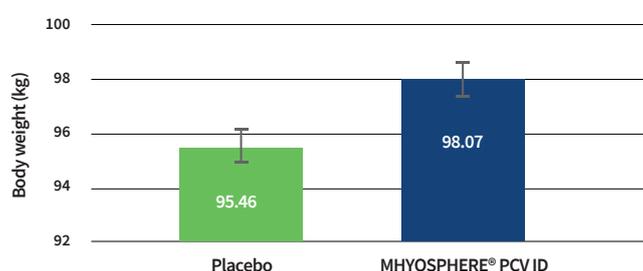


Figure 1. Mean (± SEM) body weight at the end of fattening.

Statistically significant differences were also detected in the culling rate just before slaughter with 5.2 % fewer underweight pigs (Figure 2) in the MHYOSPHERE® PCV ID group ($p < 0.001$, Chi-square Test).

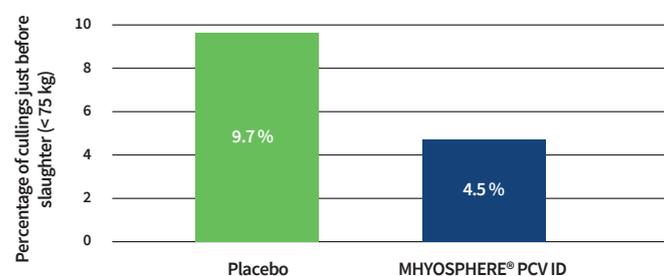


Figure 2. Culling rate (percentage of animals with <75 kg) at the end of fattening.

DISCUSSION & CONCLUSIONS

The new intradermal vaccine Mhyosphere® PCV ID is a useful tool to minimize productive losses due to *Mhyo* and/or PCV2-related diseases because it has a beneficial effect on growth performance, by reducing the loss of daily weight gain and culling rate due to *Mhyo* and/or PCV2 on commercial pig farms.

REFERENCES

- Maes, D.; Sibila, M.; Kuhnert, P.; Segalés, J.; Haesebrouck, F.; Pieters, M.; Update on Transbound Emerg Dis. 2018 May;65.
- Segalés, J.; Kekarainen, T.; Cortey, M.; Review Vet Microbiol. 2013 Jul 26;165(1-2):13-20.