

# Long term evaluations of circovirus and Mycoplasma hyopneumoniae vaccination

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Porcine circovirus type2 (PCV2) is the causative agent of several diseases that are grouped as porcine circovirus associated disease (PCVAD). Mycoplasma hyopneumoniae (M. hyo) is also a key pathogen in PRDC (Porcine respiratory disease complex).

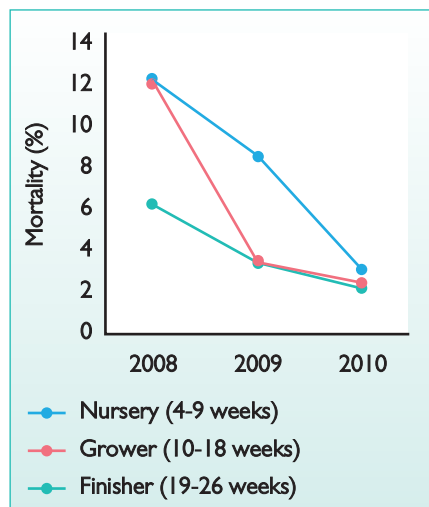
The aim of this study was to assess the effect of vaccination with a commercial circovirus vaccine in nursery and to compare the efficiency in fattening of Ingelvac CircoFlex mixed with Ingelvac MycoFlex in piglets at three weeks old, with the previous program, Ingelvac CircoFlex at three weeks and Ingelvac Mhyo at four weeks of age.

## Materials and methods

This study was performed in a farrow-to-finish farm with about 300 sows, located in KyungNam province, Korea. The farm was positive for PCV2, M. hyo as well as other

**Table 1. Comparison of feed conversion rate performance in 2009 and 2010.**

Parameter	2009	2010
FCR	3.14	3.03



**Fig 1. Development of post-weaning mortality for three consecutive years after introducing Ingelvac CircoFlex and Flexcombo.**

bacterial disease by ELISA and PCR test in December 2007. At this moment, the farm was suffering high post-weaning mortality and low feed efficiency.

From January 2009, piglets were vaccinated at three weeks of age with Ingelvac CircoFlex) and at four weeks of age with Ingelvac M. hyo. From February 2010, the program was switched to FLEXcombo (Ingelvac CircoFlex mixed with Ingelvac MycoFlex) at three weeks of age. Post-

weaning mortality was monitored from January 2008 to December 2010. Feed conversion rate was evaluated in 2009 and 2010.

## Results

The farm was stabilised clinically and productivity increased with a relevant reduction in nursery, growing and finishing mortality every year (Fig. 1). Between 2008 and 2009 nursery mortality (4-9 weeks), growing mortality (10-18 weeks), and finishing mortality (19-26 weeks) decreased from 11.9 to 8.3%, 12.7 to 3.1%, 6.1 to 3.3% (Fig.1).

In 2010 mortality further decreased, the average mortality of piglets in nursery, growing, finishing mortality were 2.8, 2.0 and 1.6%. Feed conversion rate decreased as well between 2009 and 2010 (Table 1).

## Summary

PCV2 vaccine was very effective against PRDC, PCVAD in this farm, clearly reducing post-weaning mortality. After the switch to Flexcombo the positive trend continued. FCR was improved in 2010.

This might be due to less stress when using Flexcombo compared to two individual vaccinations against PCV2 and M. hyo with the previous programme. The profit from the improved FCR without vaccination cost was US\$33,737.27 per year. ■