BACTERIAL DISEASES

BBD-058

INVESTIGATION OF PRODUCTION PARAMETERS IN A COMMERCIAL PIG FARMS IN SPAIN WITH POST-WEANING DIARRHOEA BEFORE AND AFTER THE IMPLEMENTATION OF A LIVE NON-PATHOGENIC *ESCHERICHIA COLI* VACCINE (COLIPROTEC® F4/F18)

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Introduction

Post-weaning diarrhoea (PWD) remains a major cause of economic losses for the pig industry due to mortality, morbidity, decreased growth rate and cost of medication. PWD typically causes mild to severe diarrhoea after weaning, which can be associated with marked dehydration, loss of performance, and mortality.

PWD is mostly caused by enterotoxigenic Escherichia coli (ETEC), a pathotype characterized by the production of fimbriae that elicit colonization and enterotoxins that disrupt fluid homeostasis in the small intestine. F4 and F18 fimbriae are the types that are most frequently detected in ETEC isolates from cases of PWD.

Antimicrobials are frequently used on farms to treat PWD.

Coliprotec® F4/F18 is a live non-pathogenic Escherichia coli vaccine indicated for active immunisation of pigs against enterotoxigenic F4 and/ or F18 positive Escherichia coli.

Material and methods

Trial was conducted in a commercial pig farm with 450 reproductive sows, located in the North-West of Spain. This farm suffered in 2016 important enteric problems in nursery due to Rotavirus, Salmonella and enterotoxigenic Escherichia coli (ETEC). In December 2016, control measures were implemented to control enteric diseases and to reduce the use of colistin in feed.

PWD remained in nursery and new protocols were adopted, Coliprotec® F4/F18 vaccination was implemented by drenching, a single oral dose in 18 days old piglets.

Ten previous and no vaccinated batches (1794 piglets) were compared with nine vaccinated batches (1721 piglets).

Results

Mortality and ADWG had a statistical improvement, mortality decreased from 3,16% to 1,28%, daily gain increased from 382,10 to 449,67 g.

The Weight at the end of nursery was more than 2 kg per piglet.

Clinical observations showed less diarrhoea outbreaks incidence and less water medications.

ROI 2,75:1.

Conclusion

Coliprotec® F4/F18 obtained an active mucosal immunity in piglets (IgM+IgA), getting a definitive control of the enterotoxigenic Escherichia coli (ETEC).