Effect of ileitis oral vaccination against *Lawsonia intracellularis* on performance improvement in a Spanish company

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INTRODUCTION

Lawsonia intracellularis (L.i.) is the causative agent of porcine proliferative enteropathy (PPE). PPE is a relevant economic enteric disease that causes diarrhea and reduces weight gain in growing pigs[1]. The subclinical form produces as well a negative impact on performance and farm economics. L.i is endemic in most of the Spanish farms[2]. The aim of this study was to evaluate the efficacy of Enterisol® Ileitis (Boehringer Ingelheim Vetmedica GmbH) in a Spanish commercial company.

MATERIALS AND METHODS

This study was conducted in a 450 sows farrow to feeder (20 kilos) farm located in the eastern region of Spain. The farm is negative for PRRS. Pigs at fattening were suffering subclinical ileitis and L.i. infection was confirmed by ELISA (IgG). A total of 23,100 fattening pigs were included in the study (10,250 non-vaccinated and 12,850 vaccinated with the oral avirulent live vaccine Enterisol® Ileitis (Boehringer Ingelheim Vetmedica GmbH); thus, the whole production of 2013 (13 batches) vs 2014 (16 batches). The piglets were orally vaccinated via drinking water at entry in the finishing unit using Thiosulfate Blue (Boehringer Ingelheim Vetmedica GmbH) as stabilizer. All the animals were raised under similar conditions same fattening units, water and feed supply. The parameters recorded were: feed conversion rate (FCR), mortality rate (%) and gastro-intestinal antibiotics costs (€). Data has been analysed using ANOVA with SPSS v.15.0 (SPSS Inc., Chicago, IL, USA) software. The benefit cost ratio was calculated by using BECAL (Boehringer-Ingelheim Economic Calculator).

RESULTS

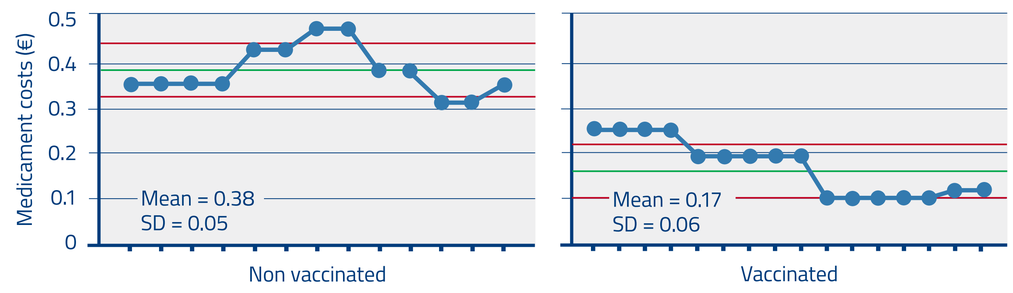
The results are summarized in Table 1.

Table 1: Efficacy of Enterisol® Ileitis at fattening.

	No vaccine (n = 13)	Vaccine (n = 16)	Difference
Animals	10250	12850	
FCR	2.60[a]	2.48[b]	- 0.12
Antibiotics (€)	0.38[a]	0.17[b]	- 0,21
Mortality (%)	1.60[a]	1.25[b]	- 0,31

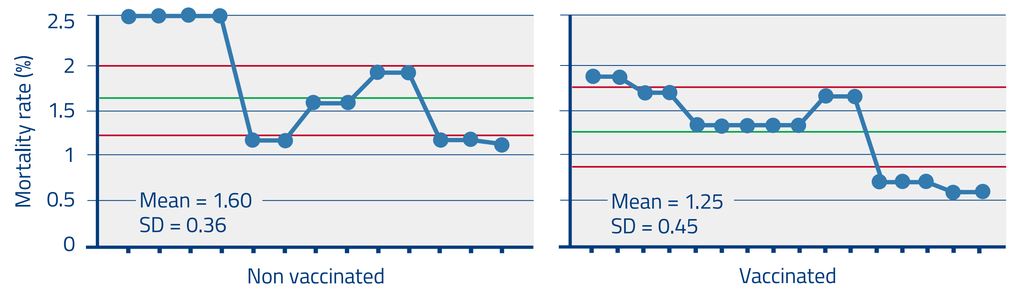
The reduction on gastro-intestinal antibiotic use in vaccinated group represents 56.4 % compared to those animals that were not vaccinated (0.38[a] vs 0.17[b], Fig. 1).

Figure 1: Medication costs before and after vaccination



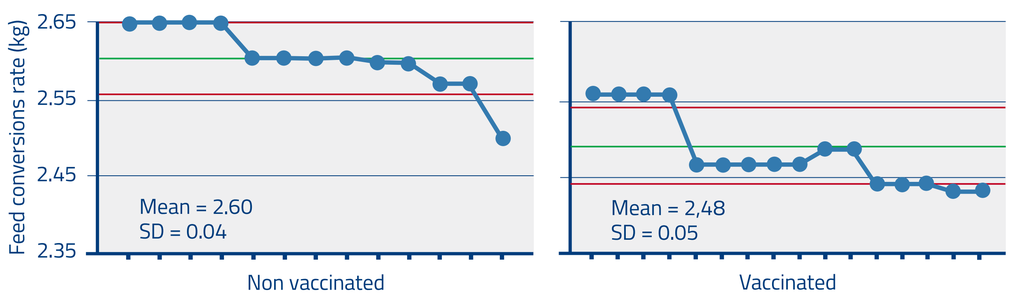
The average mortality was 19.87 % lower in vaccinated group (1.60 %[a] vs 1.25 %[b], Fig. 2).

Figure 2: Mortality rate before and after vaccination.



In addition, FCR was 120 g less in vaccinated group (2.60[a] vs 2.48[b], fig. 3).

Figure 3: SPC of FCR.



The benefit cost ratio calculated with BECAL was 2.6:1€.

CONCLUSION

In this field experience in a high health farm it was demonstrated that performance was improved due to the reduction on gastro-intestinal antibiotic, mortality and mainly by reducing FCR with the vaccination with Enterisol® Ileitis.

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REFERENCES

1. McOrist et al. (2006). Dis. of Swine 9th ed., 727 – 737.
2. Salleras et al. (2006). Proc. 19th IPVS, p. 174.