

FIELD EFFICACY OF ERYSENG® FOR THE CONTROL OF A CLINICAL SWINE ERYSIPELAS INFECTION IN A FATTENING UNIT

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INTRODUCTION

The objective of this trial was to evaluate the efficacy of ERYSENG® in pigs by comparing the serological status against swine erysipelas, the appearance of clinical signs and productive parameters at the end of the fattening period, before and after vaccination.

MATERIALS AND METHODS

The trial was conducted in a post-weaning/fattening facility located in France. This facility receives 270 twenty-eight day old piglets every 6 weeks from a breeding farm.

Before vaccinating with ERYSENG®, numerous clinical cases of swine erysipelas were observed on the farm. The mortality rate was more than 10% in 2014. The cases of arthritis were numerous and required significant treatment. At the slaughterhouse, the rate of seizures for swine erysipelas was 1.12% (31 carcasses out of 2778). Serological analysis for swine erysipelas showed negative results for all 9-week-old piglets and positive results for 50% of 19-week-old piglets, showing a clear seroconversion during the fattening period. In terms of zootechnical values, the data for 2014 were as follow: an ADG of 645 g, a FC of 2.84. The average duration of the fattening process was 169 days. Taking into account this situation the decision was made to start vaccinating all the piglets on the farm using ERYSENG®.

In order to be able to evaluate the serological status of the animals against Erysipelas, 3 consecutive batches were monitored. 10 samples of blood were taken randomly from each of the 3 batches on arrival of the animals at the facilities (28 days old). A further 10 samples of blood were taken randomly from batch 1 at 19 weeks of age, from batch 2 at 14 weeks of age (4 weeks after vaccination) and from batch 3 at 24 weeks of age (14 weeks after vaccination). Only batches 2 and 3 were vaccinated with ERYSENG® at 10 weeks of age, intramuscularly with a 2 ml/dose.

Antibodies to *E. rhusiopathiae* were titrated using a commercially available ELISA (CIVTEST® SUIS SE/MR); samples were considered positive when IRPC \geq 40. Productive parameters were also monitored during the entire fattening period.

RESULTS

At 28 days of age, on arrival at the facilities, all the batches were erysipelas negative. In batch 1 (not vaccinated), 50% of the animals were positive a 19 weeks of age, with high antibody titres indicative of infection. After starting the vaccination at 10 weeks of age, 100% of the pigs from batch 2 and batch 3 were 100% positive at 4 weeks and at 14 weeks after vaccination respectively.

Table 1. Serological status of animals against swine erysipelas.

	1nd sampling		2nd sampling	
	Weeks of age	% of positivity	Weeks of age	% of positivity
Batch 1	4	0	19	50
Batch 2	4	0	14	100
Batch 3	4	0	24	100

On the farm, the symptoms of the disease disappeared. At the slaughterhouse, the seizure rate was 0.15%, that is an 89% decrease. For the first quarter of 2015, the ADG was 665g, that is a 20g improvement compared to 2014. The FC value was 2.72 for the first quarter of 2015, that is a 0.12 reduction, which gives an estimated profit of €2.76 per 100kg of carcass. Finally, the mortality rate during fattening was reduced to 6.8%. This reduction of 3.4% means a profit of €3.74 per 100kg of carcass.

DISCUSSION AND CONCLUSIONS

Vaccination of pigs using ERYSENG®, induces effective protection against swine erysipelas, with regard not only to symptoms and mortality, but also to seizures at the slaughterhouse and productive parameters, such as the ADG and FCR.