

Ecoporc SHIGA vaccination and performance improvement

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Introduction and Objectives

Edema disease (ED) is a disease due to an enteric bacteria, *E. coli* producing Shiga toxin 2e (Stx2e). Since October 2013, Ecoporc SHIGA®, a vaccine against Stx2e is available in France. The vaccine reduces mortality and clinical signs due to ED, but users observed that vaccinated pigs were in general healthier and showed better performance. This study was conducted to scientifically verify these observations.

Materials and Methods

Inclusion criteria of the farms (n = 5) were:

- Clinical ED post weaning (PW) and implementation of Ecoporc SHIGA® for over 1.5 years
- Performances registered every trimester and piglets weighted when entering fattening (Ft)
- No changes in genetics or animal management, and no concomitant disease incident

Comparison was made between 1 year before vaccination (trimester T-4 to T-1) and 1 full year after vaccination (T 2 to T 5). The trimester when vaccination had been implemented (T 0) and the following (T 1) were excluded; therefore the effect of the ED crisis itself was not evaluated.

Results

All criteria, losses, ADG and economical FC in post weaning as in Fattening show a good improvement representing a gain of 6 € per pig, reduction of losses representing only a third.

At farm level, all but one improved their performances data in fattening. This farm E faced to market difficulties inducing longer fattening period and higher density.

Conclusion

The results presented here support the observations of the users: Ecoporc SHIGA® not only controlled the clinical effects of ED but also improved performance with an excellent return on investment. The specific mechanism behind this effect will be investigated in further studies.

Figure 1
Evolution of economical FC 30 – 115 in the group.

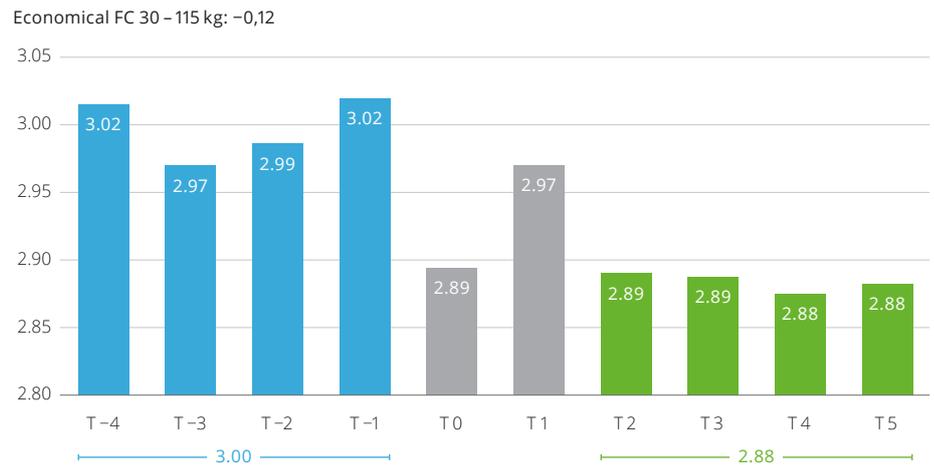


Table 1
Evolution of performances of the group, 1 year before/1 year after vaccination and technical and economical impact (see separated PW and fattening data in proceedings).

Criteria (weaning to slaughter house)	Gain	Technical Impacts	Benefit/pig (Carcass market price = 1,50 €)	total benefit
% losses	3 %	+0.8 pig/sow	2.0 €	33 %
ADG	+20 gr	+3 kg/pig	1.5 €	25 %
FC	-0,12 pt	-10 kg feed/pig	2.5 €	42 %
total			6 €	100 %

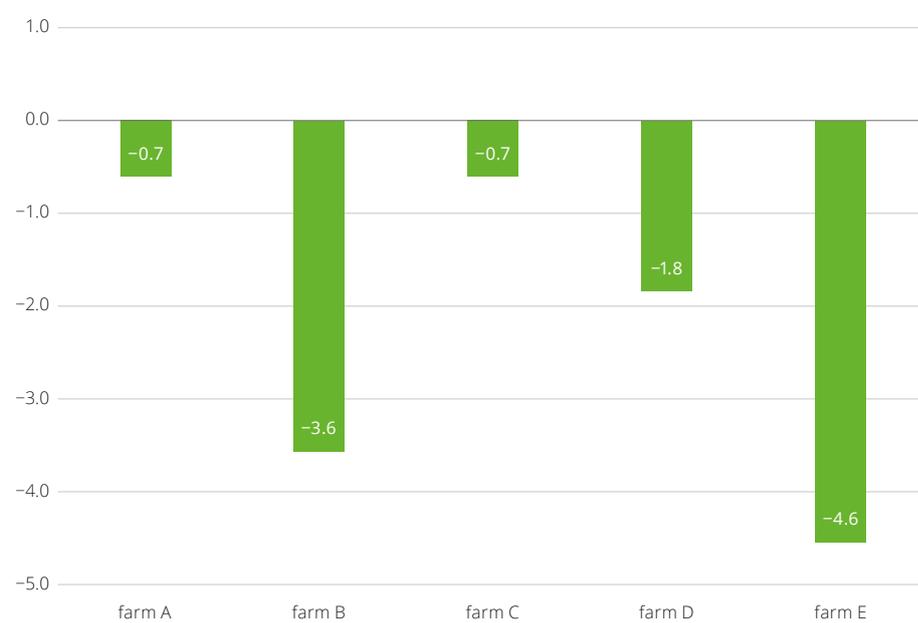
Figure 2

Evolution of individual farm's performances
1 year before/1 year after vaccination

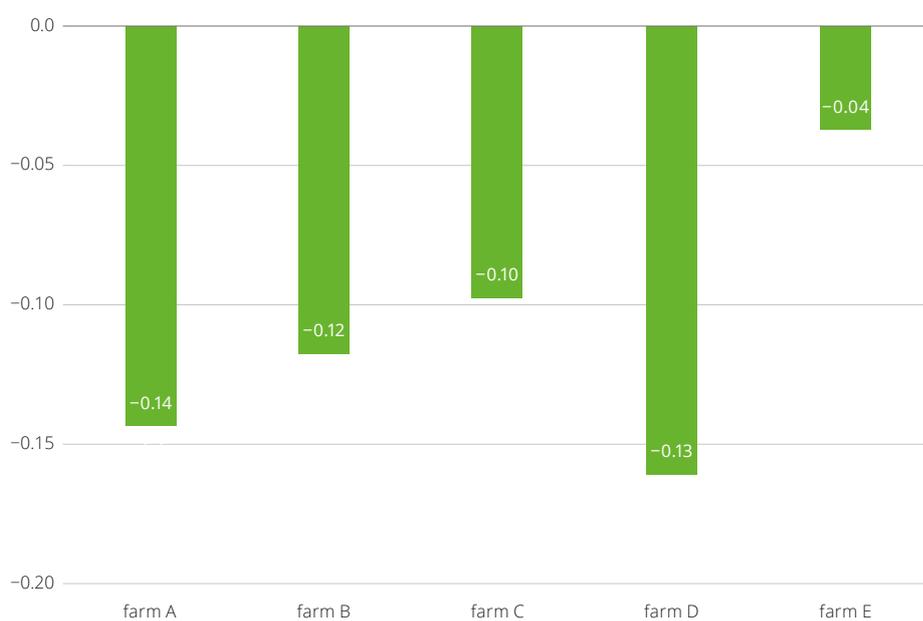
■ positive evolution
■ negative evolution

Post weaning

% losses

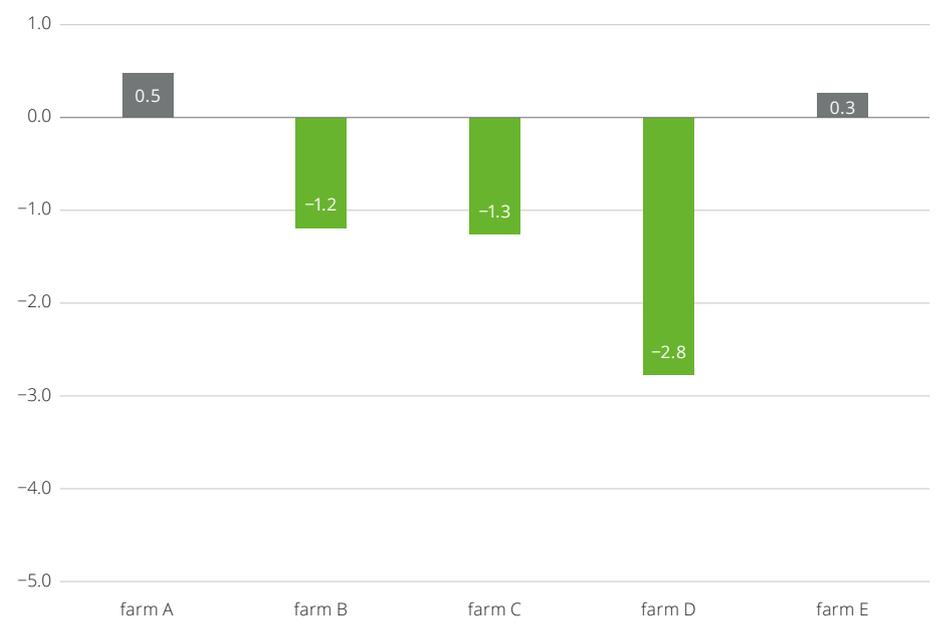


Feed conversion 8 - 30 kg



Fattening

% losses



Feed conversion 30 - 115 kg

