

PRRSV successfully handled with whole herd vaccination. Concept and biosafety analysis.



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INTRODUCTION

Five farmers supplied by one piglet breeder increasingly complained of disease-susceptible and poorer-growing pigs and therefore an increased need for antibiotic treatment.

MATERIALS AND METHODS

The piglet breeding facility is a 2 side production system with 480 sows, located in lower Saxony, Germany. The weaned pigs are kept in outdoor climate barns, 1.5km away from the sows.

The sows are vaccinated against PRRSV (Porcillis® PRRS), Parvovirus (Parvoruvac®), Escherichia coli (Entericolix®) and Clostridium perfringens typ A (CLOSTRIPORC A). The piglets are vaccinated against Porcine Circovirus Typ 2 (PCV2) and Mycoplasma hyopneumoniae (FLEXcombo®).

In order to identify the underlying cause, 30 blood samples from sows and piglets were analysed for PRRSV (porcine respiratory and reproductive disease virus) and other agents. In a pool out of 5 blood samples of unvaccinated 30-kg piglets, PRRSV EU virus was found. As from September 2015, a new vaccination scheme was established; the piglets received a new PRRSV vaccine (Ingelvac PRRSFLEX® EU) and the sow stock was treated with a new PRRSV sow vaccine (ReproCyc PRRS® EU) every 4 months. These measures were supported by a biosafety analysis with the application of critical external and internal biosafety aspects.

RESULTS

From September 2015 onwards, the recurrences of estrus decreased from 17% to 10.6% (Fig. 1). The number of weaned piglets per litter was increased by 0.8% to 12.5% (Fig. 2). The suckling piglet mortality rate dropped from 18.2% to 12.5% (Fig. 3).

Figure 1: return to oestrus before and after using the new vaccination and biosecurity protocol.

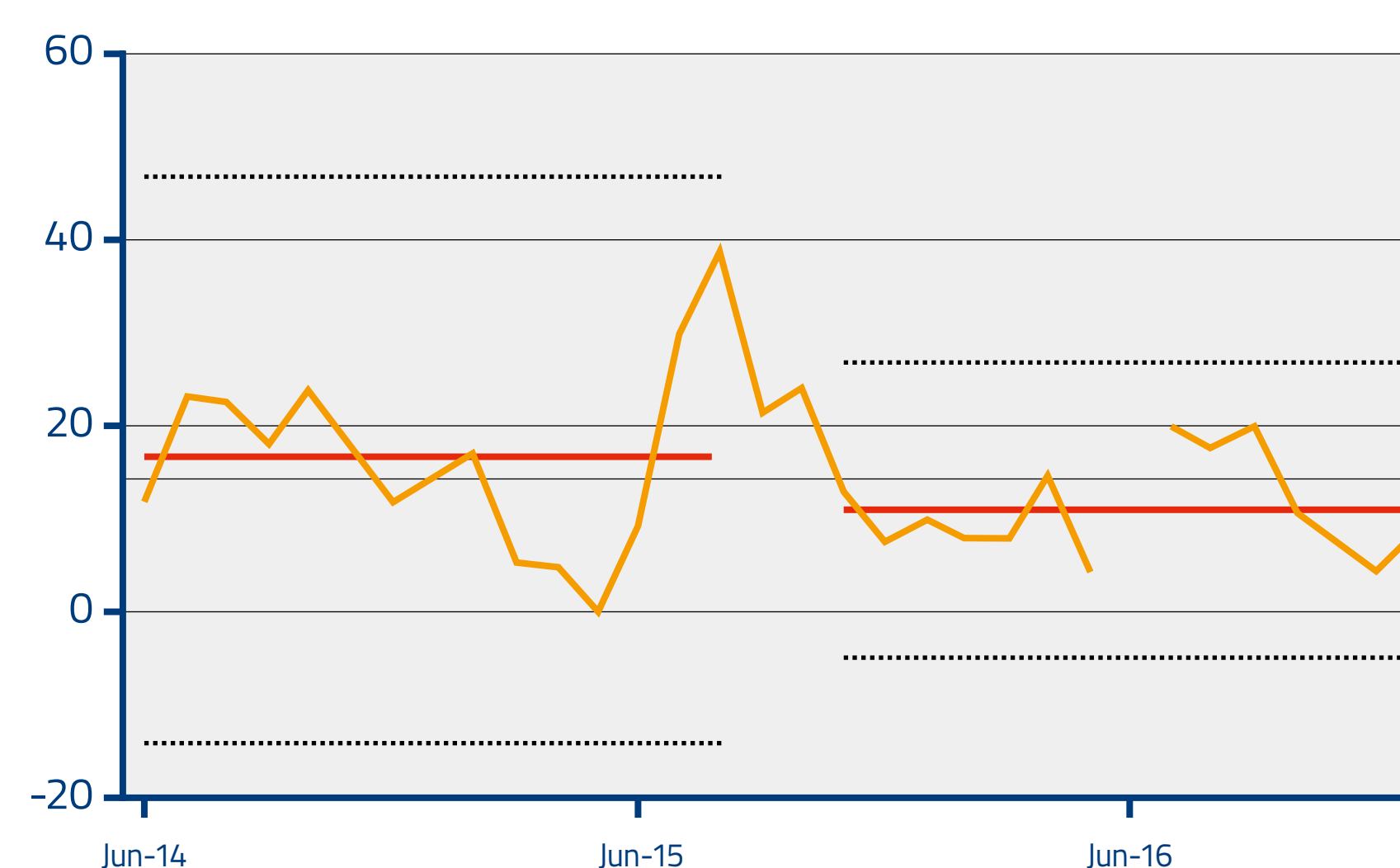


Figure 2: piglets weaned per litter before and after the new vaccination and biosecurity protocol

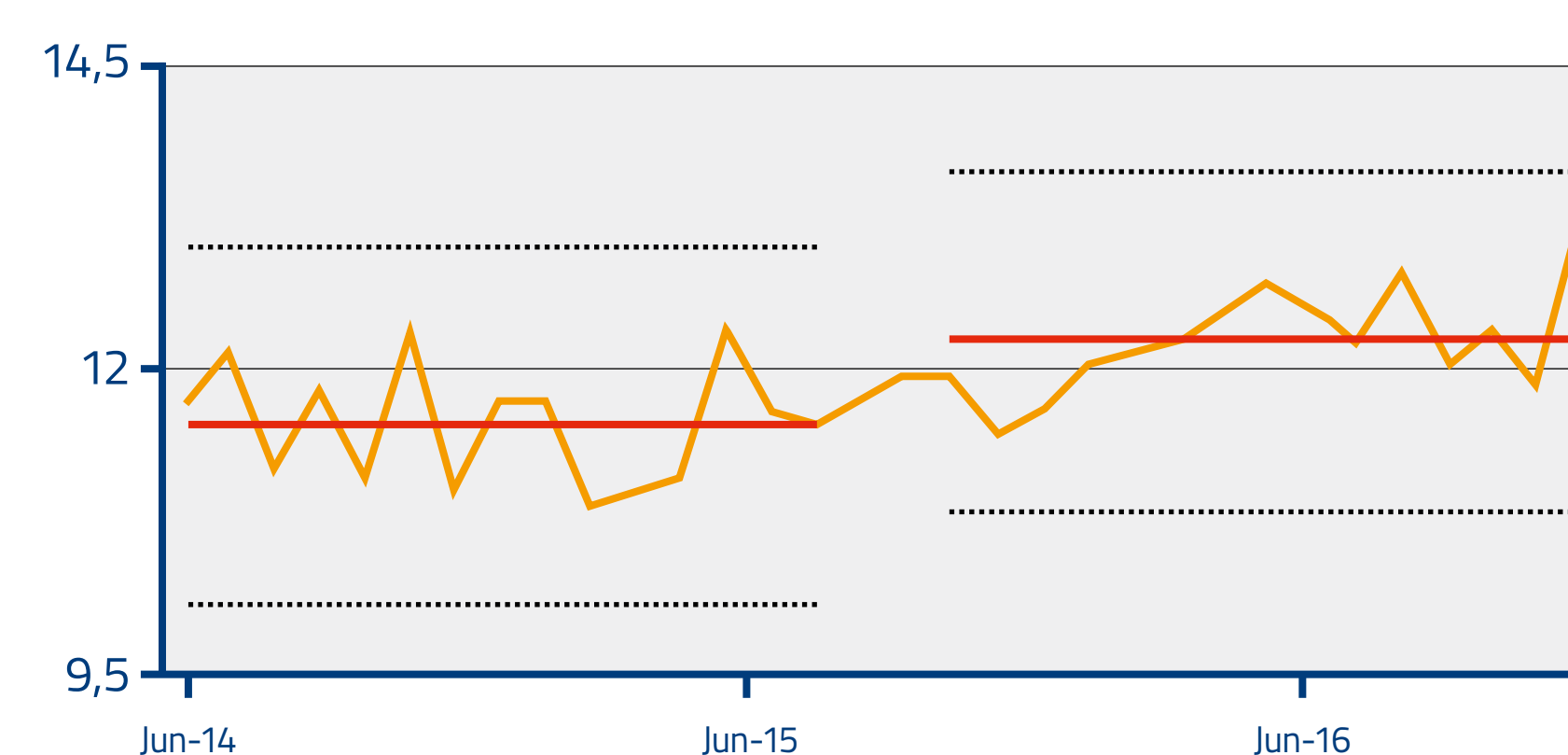
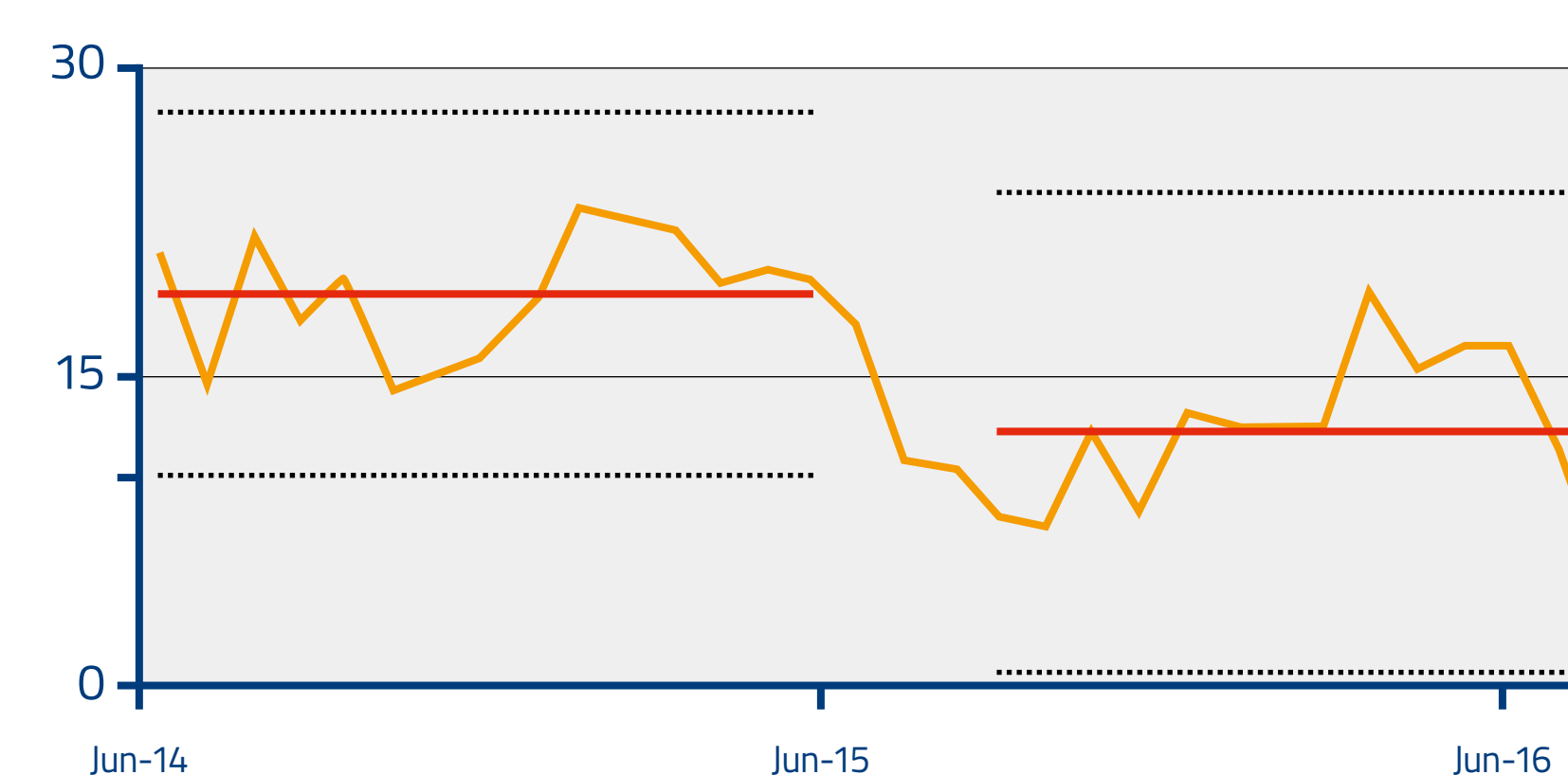


Figure 3: pre-wean mortality before and after the new vaccination and biosecurity protocol



CONCLUSIONS AND DISCUSSION

The presented case report exemplifies how the combination of biosecurity improvements together with the implementation of a novel vaccination scheme including a whole-herd-vaccination and sow vaccination substantially reduced infection pressure by PRRSV, ameliorated animal health and enhanced performance parameters (as evaluated based on sow planner analysis).

