

# EVALUATION OF THE ECONOMIC IMPACT OF THE PRRS VIRUS IN THE NURSERY PHASE

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## BACKGROUND & OBJECTIVES

Veterinarians and producers often ask themselves what the real impact of the PRRS virus is in the growing phase. Although there are some studies that estimate the impact of the disease on the breeding herd, information on the nursery phase in Europe is limited. The aim of this study was to estimate the economic impact of PRRS in the nursery phase depending on the PRRS status at the source farm.

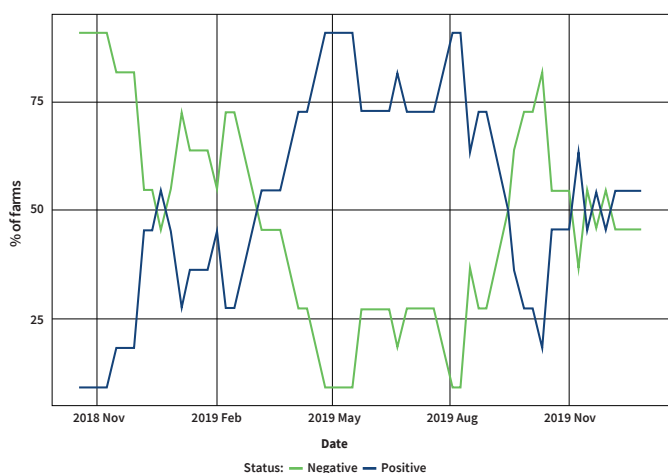
## MATERIALS AND METHODS

Between October 2018 and December 2019, 11 breeding herds with a multi-site system in the north of Italy were enrolled in a PRRSV monitoring programme following the classification proposed by Holtkamp *et al.*<sup>1</sup>. The farms adopted a protocol which consisted of monthly individual due-to-wean blood testing of 30 piglets by RT-PCR (5 pools of 6 in each). Based on the diagnostic results for the breeding herd, the PRRS status of each batch of weaned piglets produced was classified as: Negative (N) or Positive (P). The key performance indicators (KPI) used to evaluate the impact of PRRS in the nursery phase were ADG, % mortality, medication costs and feed conversion rate.

Productive performance was statistically analysed using an Anova test (Weighted ADG and FCR) and Wilcoxon test (for Medication cost and Mortality).

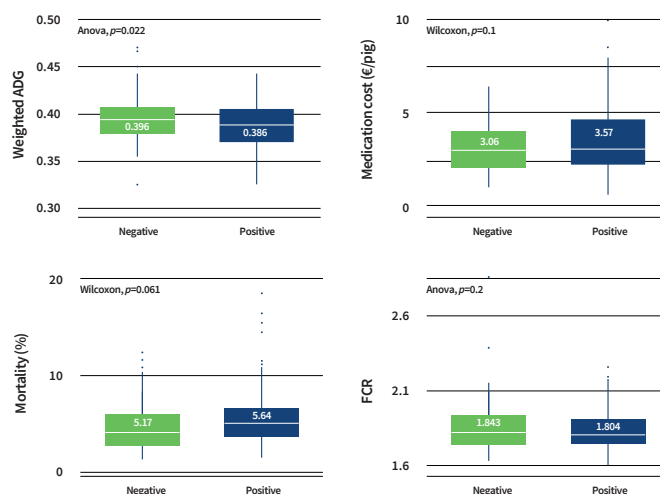
## RESULTS

A total of 161 batches of piglets from the 11 breeding herds, representing 460,000 piglets, was analysed: 55 batches were classified as N and 106 as P and monitored during the nursery phase.



**Figure 1:** Changes in the percentage of P and N weaned batches of piglets during the PRRSV monitoring period (October 2018 to December 2019).

Statistically significant differences were observed in average daily gain (ADG: 402 g. in N vs. 378 g. in P,  $p$ -value: 0.03) and mortality (5.17% in N vs. 5.64% in P,  $p$ -value: 0.061). Medication costs (3.06 €/animals in N vs. 3.57 €/animal in P,  $p$ -value: 0.102) and FCR (1.843 kg in N vs. 1.804 kg in P,  $p$ -value: 0.2) did not show statistically significant differences between groups.



**Figure 2:** KPI based on PRRSV positivity at weaning

## DISCUSSION & CONCLUSION

These results provide a better understanding of the economic impact of the PRRSV in the growing phase, reinforcing the efforts to stabilize the breeding herds in order to produce a negative flow of piglets. Taking into account the extra cost of feeding, medication and mortality of positive batches at weaning, the economic impact of PRRS in the nursery phase was 3.67 € per 31 kg pig.

## REFERENCES

<sup>1</sup>Holtkamp, D.; *et al.* Terminology for classifying swine herds by porcine reproductive and respiratory syndrome virus status. *J Swine Health Prod.* 2011; 19(1), pp. 44-56.