

## **REP-PP-02**

### **TITLE**

PCV2 SEROFILES ON BREEDING HERDS: A USEFUL TOOL TO DETECT VIRUS CIRCULATION AND ITS POTENTIAL IMPACT ON REPRODUCTIVE PERFORMANCES

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### **CONTENT**

#### Background and Objectives

Porcine Circovirus type 2 (PCV2) is an ubiquitous virus responsible for various symptoms. Its impact on reproductive disorders has been demonstrated in experimental and field conditions. The objective of this study was to evaluate the interest of PCV2 serologic profile on sows in order to investigate involvement of this virus in reproductive problems.

#### Materials and methods

Four farrow-to-finish herds, without PCV2 vaccination on sows and encountering reproductive disorders were selected. Technical criteria considered were suboptimal results of fertility, prolificacy and mortality. In each herd, we sampled blood from 5 gilts before artificial insemination, 5 gestating gilts, 5 parity 2 sows and five to ten parity 3 (or more) sows.

Sera were analyzed with a commercial ELISA (SERELISA PCV2 Ab Mono Blocking, Synbiotics, Lyon, France). They were treated following manufacturer's instruction (short incubation time) and an adapted protocol with a longer incubation time at 4°C during 18h. A sample was considered positive following serological kit's cut-off using short incubation time and the cut-off published in the Fablet et al. publication using long incubation time.

#### Results

The serological results showed a variable proportion of seronegative gilts or sows from 50 to 87.5% using short incubation protocol and 0 to 31.25% using longer incubation time.

Although PCV2 is a very resistant and widespread virus within pig farms, some animals coming from high health status multipliers may be naïve at entry in the farm and sometimes still for a long time, even after several parities.

#### Conclusion

This study evidences the high variability of PCV2 serological status in sow herds and the interest of serological profile when a complete differential diagnosis of reproductive disorders is needed.

This type of investigations is still challenging and expensive but the impact of PCV2 on gilts and multiparous sows performances shouldn't be underestimated by practitioners.