

## PRRS incidence in status 4 sow farms

M. Kikuti, J.M. Sanhueza, E. Geary, C. Vilalta, C. Picasso, M. Medrano, C. Corzo

### Key Points

- In the last 13 years, on average 9.3% (Range 3.2% – 20.3%) of status 4 farms have had a PRRS outbreak, with an apparent cyclical peak at around 10% every 2-3 years.
- The cumulative incidence of the current MSHMP year (July 2020 to May 2021) for status 4 farms is 9.9%.
- PRRS incidence in status 4 farms during the current MSHMP season is not higher than the ones observed in the previous MSHMP seasons.

Similar to 2018, there seems to be an overall perception that there has been an increase of status 4 sow farms breaking with PRRS this MSHMP year. We updated the analysis done at the time to describe PRRS incidence in status 4 farms from 2009 to May 2021 and compare with the current MSHMP year using Fisher's Exact test. Data for the 2020-2021 MSHMP year contains only 11 months (July to December).

During the current MSHMP year (July 2020-May 2021), 42 status 4 farms have had a PRRS outbreak. The average incidence of status 4 farms from 2009 to May 2021 was 9.3%. However, PRRS incidence has varied greatly among years. The highest PRRS incidence remains the 2011/2012 MSHMP season with a 20.3%, whereas the lowest PRRS incidence occurred during the 2013/2014 MSHMP season (when PEDV emerged in the U.S.) in which 3.3% of the herds broke.

The percentage of farms that broke from status 4 between July 2020 and May 2021 (9.9%, 95% confidence interval (CI) 7.2%-13.1%) was numerically higher than the percentage of farms that broke from status 4 between July 2019 and June 2020 (4.8%, 95% CI 3.0%-7.4%). Nevertheless, this difference was not statistically significant ( $p=0.82$ ). Compared to the period with the highest incidence, the 2011/2012 MSHMP year (20.3%; 95%CI 15.0%-26.4%), the 2020/2021 PRRS incidence is significantly lower ( $p=0.01$ ).

In summary, PRRS incidence in status 4 farms for the current MSHMP year (2020-2021) is at the high end of the expected range but is overall similar to previous years. The data also suggests that the PRRS incidence in status 4 farms tends to range from 3% to 10%, with an apparent cyclical peak every 2-3 years. Other factors, such as regional transmission of PRRS, may be contributing to the perception of increased PRRS incidence in status 4 farms. Exploring these factors may help explain the perception of increased incidence.

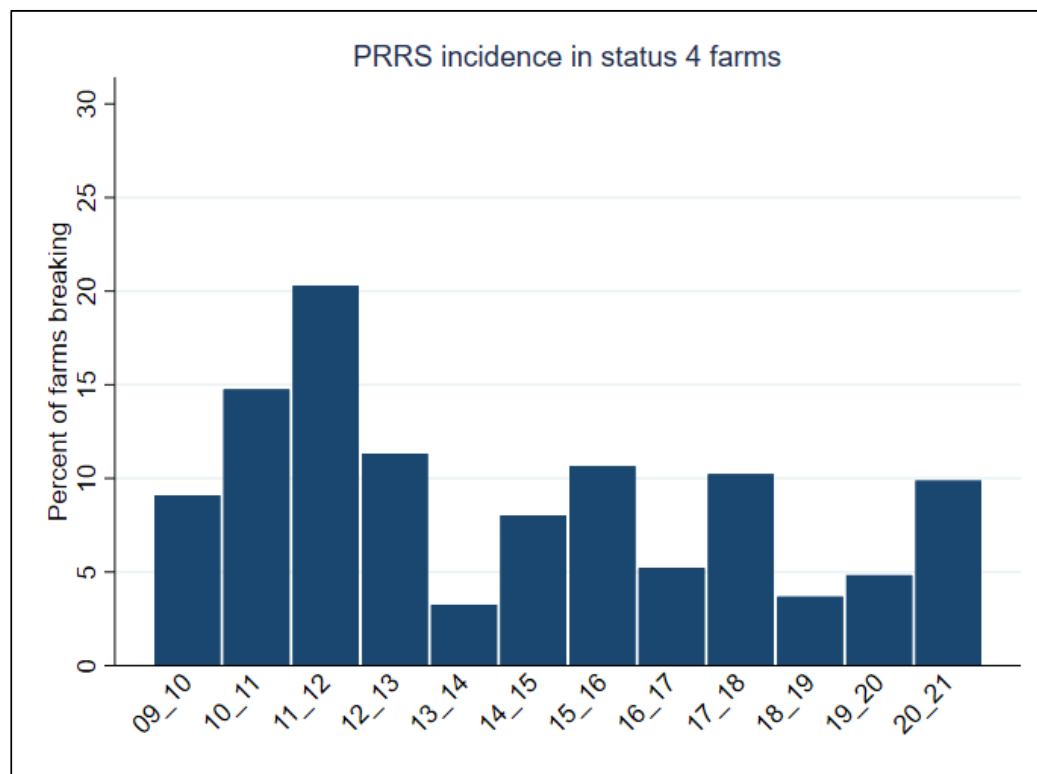


Figure 1. PRRS incidence in status 4 farms per year (July-June). The 2020-2021 year comprises data for July-May.