Updated epidemiological curve of cases associated with the new Lineage 1C RFLP1-4-4 variant

Mariana Kikuti, Emily Geary, Miranda Medrano, and Cesar Corzo
Morrison Swine Health Monitoring Project
University of Minnesota

As we continue to monitor the detection of the newly described PRRSv Lineage 1C RFLP 1-4-4 variant, we would like to update the epidemiological curve of cases associated with this variant. The updated epidemiological curve of the number of sequences of this variant detected per week is shown in Figure 1A. As of our last update, a total of 492 sequences from 16 MSHMP participating production systems have been detected in 379 sites (239 growing pig farms, 68 breeding herds, 63 other, and 9 with no information on site type). The epidemiological curve of sites affected by this variant is shown in Figure 1B. Coordinates or State information was available for 93% of cases. This strain continues to be detected in MN, IA, IL, SD, MO and WI, with 88% of all cases occurring in MN and IA (or 98% of all cases with available coordinates/states information). It is important to highlight that this analysis is based on sequence data obtained by the UMN, ISU, and SDSU Veterinary Diagnostic Laboratories of MSHMP participating systems; therefore, non-MSHMP production systems are not represented in this graph and may also be experiencing cases.

For the purposes of a correct case classification, orf5 sequences representative of 83% of cases from this outbreak (68% of the genetic diversity) up to December 2020 are deposited at GenBank (accession numbers MW525326-MW525341, MW525343). The full epidemiological and genetic description of this outbreak can be found at Front. Vet. Sci. 8:752938 (https://doi.org/10.3389/fvets.2021.752938).

Once again, we would like to thank the MSHMP participants for their willingness to share information. If you have any comments/suggestions on this topic or would like to raise a different topic to be investigated with the MSHMP data, do not hesitate to contact Cesar Corzo at corzo@umn.edu and Mariana Kikuti at mkikuti@umn.edu.