

Morrison Swine Health Monitoring Project
Incidence Year 2020 / 2021 Annual Summary
MSHMP Team

The 2020-2021 MSHMP incidence year again brought us unexpected events and chances to learn. We were able to meet these challenges only because you as an MSHMP participants continue to share your data. We would like to provide a general update and summary of where we are at this point.

Objective 1 – Disease incidence monitoring

PRRSv – In general, it was a different year. This was characterized by the fact that a new variant (Lineage 1C, 1-4-4) emerged and rapidly spread in a swine-dense region generating important losses through its two epidemic waves. In addition, it reminded us that PRRSv outbreaks can still occur in the late spring-early summer at an important rate, changing our epidemic curve for the first time. Despite this new variant, the PRRSv incidence ended at 24.3%.

PEDv / PDCoV – These viruses continue to play their endemic-low incidence strategy with PEDv and PDCoV infecting 59 and 60 herds respectively.

Objective 2 – Prospective monitoring of PRRSv

During 2020-2021 we were able to confirm that all the work invested into generating a robust database is key. Through this work, we were able to understand and trace back the new emerging PRRSv variant very rapidly.

Objective 3 – Develop capacity to capture and analyze movement data

Analyses of the current transport dataset are providing interesting findings. We observed a notorious reduction in trucks movements in the second trimester of 2020, which was compensated with a higher number of movements (~10% more) in the following trimester. Furthermore, we confirmed that most of the movements within the system connect the triad *Sow farms*, *Wean-to-finish*, and *truck wash* facilities, in the direction in which they were enumerated. This finding highlights the compliance on washing vehicles before reaching a sow farm, an important biosecurity practice for disease prevention. However, this pattern was observed to less extent for other production sites.

Objective 4 – To expand participation to allow all to be involved

During 2020-2021 MSHMP continued to expand in different areas, 1) Growing pig sites and 2) Boar Studs. Today we have a total of 6 systems from which we have breeding and growing pig sites. However, for the first time since the project was established, we saw 2 systems leave our project. Unfortunately, COVID-19 related financial constraints played an important role. Despite the loss of these systems we continue to see the project grow, with the welcome addition of a new system within the last year and continued interest from others.

Once again, we would like to acknowledge the effort you make to share with us data on a weekly basis. This also would not be possible without the financial support from the Swine Health Information Center.

Sincerely,
The MSHMP Team