Morrison Swine Health Monitoring Project (MSHMP) 2021 Summary
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We are excited to begin this year by providing you a general summary of our 2021 activities on this science page. Last year we continued to work hard on building capacity of MSHMP thanks to your continued feedback and commitment. Most importantly, for an important portion of the year we were able to test our program internally/externally as we navigated through the unfortunate PRRS Lineage 1C 1-4-4 event.

1) System and Database – During the year we had the opportunity to make important advancements from a capacity building perspective. Since we have already begun acquiring growing pig site data for a select group of participants, the database has been customized to easily add new sites under each participant ID by specifying the farm type and we are working on finetuning the linkage between sow and growing pig farm from a flow and health status standpoint. This is a critical step in tracing pig flow and potential pathogen dissemination analyses.

2) PRRS sequence monitoring – Efforts dedicated to building and curating our PRRS sequence database were recognized throughout 2021 for different reasons after the emergence of the L1C 1-4-4 variant. For instance, i) we were able to rapidly aid in the classification and differentiation of this new variant, ii) estimated the number of sequences and linked them to the herd of origin to calculate disease occurrence metrics and maps, including the first national epidemiologic curve and iii) highlighted the best strategy to correctly confirm whether 1-4-4 outbreaks were related to the new variant. Additionally, this sequence database has become a tool in the outbreak investigation process and has enable us to aid in connecting practitioners.

3) Transport data capture and analysis – Data capture and analyses continue and during the year as we were able to test our ability of using the current technology in aiding outbreak investigations. The current tracking system allowed us to understand where exactly these trucks have to during the days/weeks prior to the outbreak.

4) Expansion – During 2021 we continued to work towards expanding our coverage. Fortunately, our participants continued to actively participate on our project and 2 prospective systems initiated the onboarding process and we are currently waiting for their data to arrive. We continue our growing pig inclusion and at the end of 2021 we have a total of 6 participants from which we have both breeding and growing pig data.

We are again blessed with having priceless support by all of our participants as all of you continue to voluntarily share your data. Furthermore, the financial support through the Swine Health Information Center (SHIC) has been key to continue to move forward and build capacity towards foreign disease preparedness through MSHMP.

We look forward to working with you throughout 2022!

Sincerely,
Cesar A Corzo