

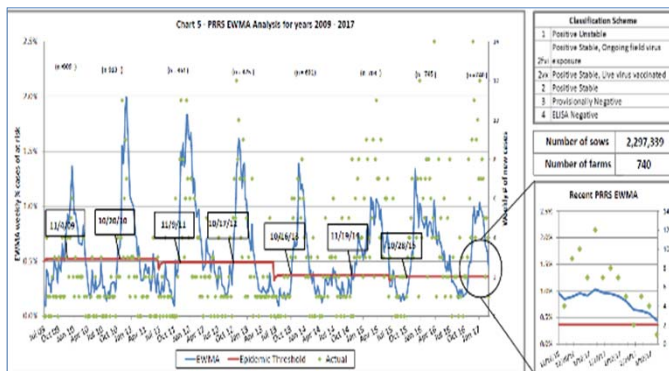
## Swine Health Monitoring Project – An update

**Bob Morrison, Carles Vilalta, Juan Sanhueza, Paulo Fioravante, Emily Geary**

### Key Points

- Our participants commit to the following: *“These producers are willing to share their premises IDs and pathogen status in the interests of national disease control.”*
- In the first phase of our project, we developed the capacity to report health status for sow herds.
- In this next phase, we will add growing pig locations and status.

We are half way through our second year of funding from SHIC and we want to tell you what we are working on. Our long-term objective is to develop the capacity to support a voluntary industry response to an emerging pathogen. To accomplish that, we collect sow herd locations and current health status. We have just over 1,000 sow herds enrolled with 2.9 million sows accounting for approximately half the industry. We use these data to deliver short-term value in an effort to sustain and encourage participation. This includes weekly reporting of disease incidence and prevalence (page 2-4 of weekly report), providing tools to supplement outbreak investigation, the capacity for participants to benchmark their disease control efforts and heat maps that serve to indicate where recent activity of PRRS virus exists. We provide these latter features to participants through exclusive access using Tableau. Participants can also share secure access to each other’s locations and health status.



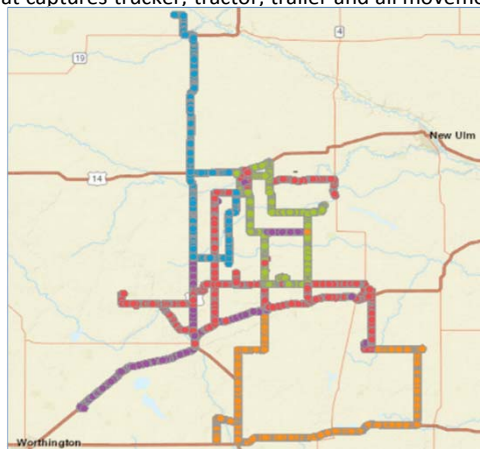
**PRRS EWMA Chart**



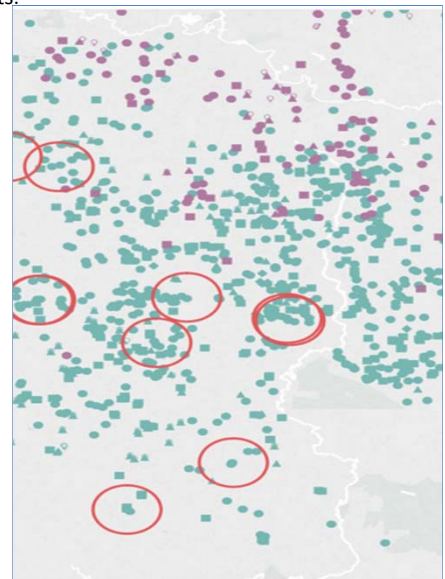
**Outbreak Map with Sequences**

The next phase of developing our capacity is to capture pig movement data. If we know health status of the sow herd and we can capture pig movement, then we can infer the disease status of downstream sites. Given there might be up to 10x growing pig sites for every sow farm, this added capacity will improve the resolution of our heat maps. Capturing movement data will be challenging given that there are multiple ways by which it is recorded from not at all to scraps of paper, through production records, spreadsheets and online web services. For producers needing a recording system, we are developing an app that captures trucker, tractor, trailer and all movements.

If we can develop our capacity as described above, we can imagine using this infrastructure to supplement the business continuity program. We’ll need considerable effort to validate PINs, locations, health status, movement data and develop the capacity to capture clinical signs; all possible. We appreciate the support of our participants and as our report states every week, *“These producers are willing to share their premises IDs and pathogen status in the interests of national disease control.”* That’s what we’re working on.



**Above: Transport Data map**



**Right: Risk Assessment Buffer map**

Contact me with questions or comments. [BobM@UMN.Edu](mailto:BobM@UMN.Edu);