

PRRS similarity visualization over time and space

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Key Points

- This visualization allows us to compare ORF5 sequence similarity across different locations and taken at different times.
- With Tableau we are able to integrate data coming from the VDLs with other sources when available.

Thanks to all the current data streams that you are sharing from the VDLs and farm locations, we have built visualizations in Tableau to compare similarities among sequences (PRRS or Influenza).

In the following visualization, we can compare ORF5 similarities among different PRRS isolates. The visualization is composed by three pieces: Similarity map, Similarity table and Similarity over time. Using the filter in the top right we can change the reference isolate and show how the other isolates are related by ORF5 similarity in terms of time and space (Figure 1). We are using the color blue to show similarity and the darker the blue is, the more related the sequences are. The colors in the visualization disappear when no reference isolate is in the filter and only the general similarity table comparing all the isolates of the system is visible (Figure 2). We have the potential to filter the sequences using other information such as year and type of production.

You can find all this information in the Tableau server. Currently, only the systems that shared sequence information and locations have this visualization available.

As always, we appreciate your comments and feedback .

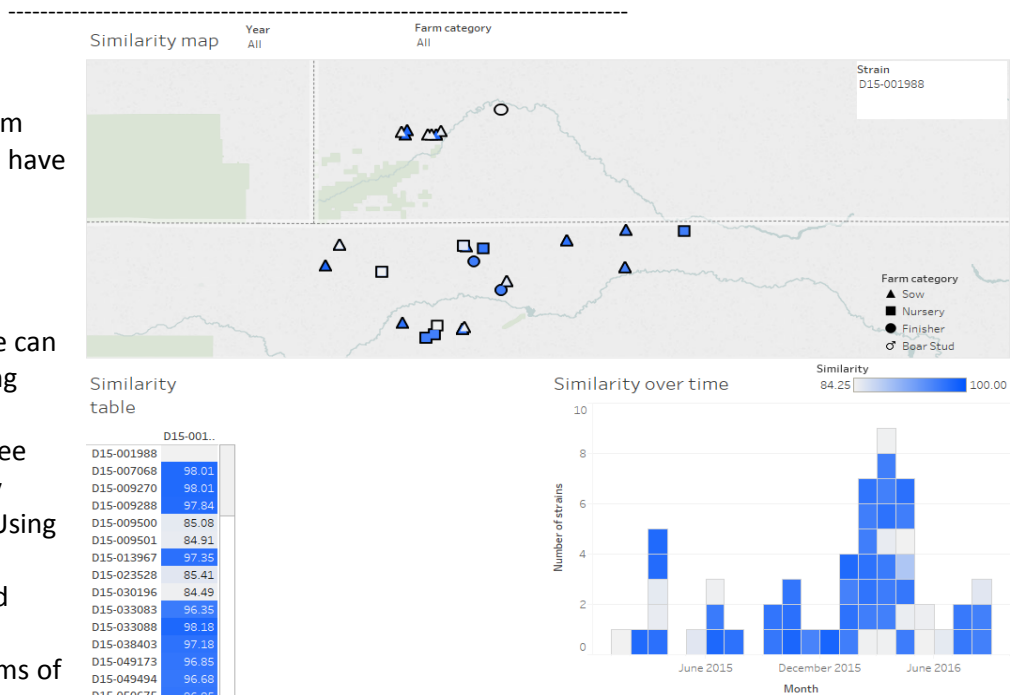


Figure 1. Spatio-temporal visualization of PRRS ORF 5

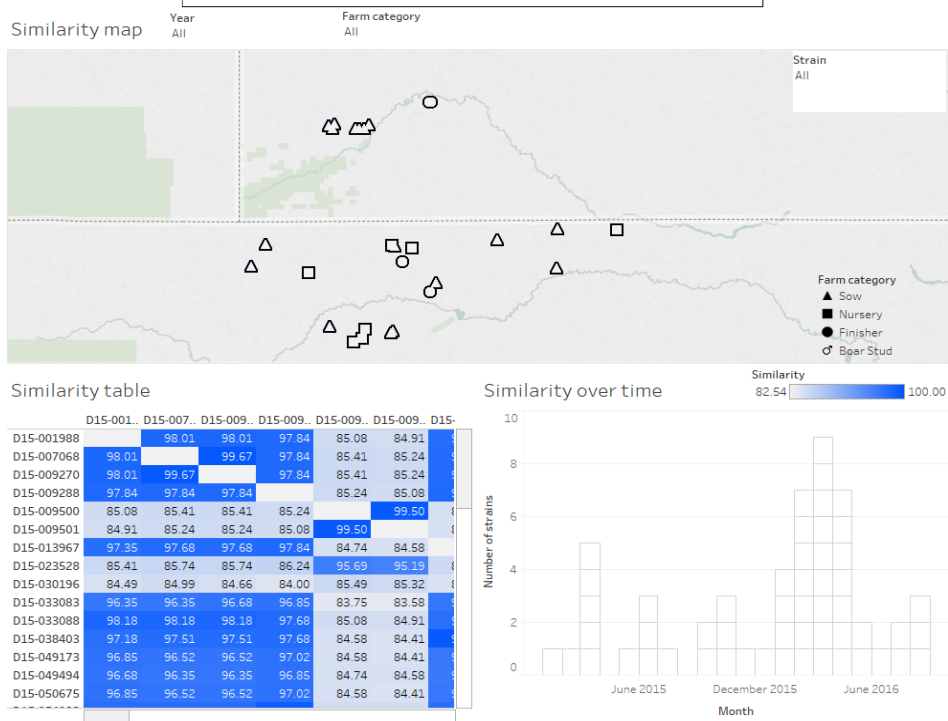


Figure 2. Visualization layout when no reference strain is in the filter.