



Season 7, Episode 5: Understanding Hog Trailer Contamination and Re-Contamination

Dr. Cesar Corzo, associate professor at the University of Minnesota and Lehman chair for swine health and productivity, and **Lucas Ferreira**, research assistant and PhD student at the university, share opportunities to strengthen transportation biosecurity.

Background

Porcine Reproductive and Respiratory Syndrome (PRRS) has shown veterinarians, producers, and researchers the need to limit the spread of pathogens. This can be done through isolation units, Polymerase chain reaction (PCR) tests, isolation of sow farms, and shower-in, shower-out facilities. This has been successful for sow farms, but the industry now faces a biosecurity challenge as the pig population grows. With so many pigs being transported from various locations in the country to one harvest plant in one day, it is unlikely they all arrive with the same health status. This means some may arrive at the plant and contaminate trailers that are then brought back to the farm, contaminating the herd.

Research Project Design

The year-long research project had data coming from two different harvesting facilities. The pathogens looked at throughout the study included PRRS, Porcine Epidemic Diarrhea Virus (PED), Delta Coronavirus, and Seneca Valley Virus. The project was designed to measure contamination and how often trailers were arriving to harvest facilities contaminated. The study included temperature, humidity, and seasonality as variables. Truck drivers were given surveys asking where the trailers came from, where they were going, what cleaning protocols were used before loading, and what protocols they would use after unloading the pigs at the facility.

Project Results

Project data showed that at least 1/3 of arriving trailers were already contaminated with at least one pathogen. Another conclusion is that around 50% of harvest facilities are usually contaminated with at least one pathogen. Contamination likely increased from 10% to 45% at the harvest plant. Seasonality plays a major role in contamination. Fall was the worst season observed for an increase in contamination. Temperature, humidity, and time of day pigs arrived also played a role in the likelihood of contamination. If trailers were washed before and after arriving at the facility, contamination decreased from 46% to 70%, depending on the pathogen.

Takeaways

Increasing biosecurity within the growing herd on trailers will significantly impact contamination at harvest facilities. Increasing truck driver education on biosecurity practices and the importance of biosecurity before and after leaving the facility will help prevent contamination across all levels. The industry has seen success in biosecurity at the breeding level and is now pushing to transfer that success to growing sites.

To listen to this full podcast please visit: <https://globalagnetwork.com/pigx/podcast/season-7-episode-5-understanding-hog-trailer-contamination-and-re-contamination>

