

Season 5, Episode 10: The Value and Importance of Market Haul Sanitation

Dr. Edison Magalhaes, Iowa State University, **Dr. Pete Thomas**, Iowa Select Farms, and **Dr. Tyler Bauman**, The Machhoffs, share the latest research related to swine market hauling equipment. They explore the current state of transportation in the swine industry and its effect on swine health.

Background

Proper market haul sanitation is essential for protecting swine health by reducing the spread of diseases like Porcine Epidemic Diarrhea (PED) and deltacoronavirus. However, swine producers face challenges in maintaining effective sanitation due to limited truck wash capacity, labor shortages, and water availability. Dr. Magalhaes and his team have investigated various sanitation methods – including power washing, disinfection, and high-volume washes – to determine the most effective approaches for reducing viral contamination in transportation equipment.

Research Findings and Industry Implementation

Dr. Magalhaes' research revealed that high-volume wash and disinfection – widely used in Denmark and some U.S. systems – can reduce viral load by over 99%. In contrast, dry cleaning methods such as scrape and bake were found to be ineffective at fully inactivating viruses. These findings have prompted companies like The Maschhoffs and Iowa Select Farms to refine their market haul sanitation strategies.

At The Maschhoffs, Dr. Bauman and his team identified market haul as a key risk factor for disease outbreaks and implemented standardized washing procedures to mitigate this threat. Their strategy included regular testing, sanitation protocol adjustments, and active involvement of contract growers to ensure compliance. Similarly, Iowa Select Farms, under Dr. Thomas' leadership, enhanced its sanitation measures in 2018, resulting in an 11-fold reduction in disease outbreaks during marketing and a 10-fold decrease in PED cases. Their financial analysis demonstrated a return on investment ranging from 1:1 to 2:1, highlighting the economic viability of these efforts.

Overcoming Barriers and Strengthening Biosecurity

Effective market haul sanitation relies on cooperation among key stakeholders, including truck drivers, farm staff, and third-party contractors. Both The Maschhoffs and Iowa Select Farms emphasized the importance of aligning industry partners to uphold biosecurity standards. Strategies such as maintaining a clean-dirty line, enforcing shower-in/shower-out policies, and providing site-specific equipment have further reinforced disease prevention efforts. While challenges remain – including inclement weather and logistical constraints – ongoing audits, protocol refinements continue to enhance compliance and strengthen sanitation practices.

The Future of Swine Transportation Biosecurity

Market haul sanitation is essential for protecting swine health and preventing disease transmission. Research-driven cleaning methods, coupled with industry-wide collaboration, have proven effective in reducing viral spread and improving herd performance. As technology and infrastructure advance, continued innovations in truck sanitation and biosecurity protocols will play a vital role in shaping the future of swine transportation and health management.

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