

Season 3, Episode 2: The Definition and Purpose of Staged Loading

Dr. Derald Holtkamp and Dr. Chris Rademacher, Iowa State University College of Veterinary Medicine, tackle the concept and importance of staged loading.

Definition and purpose

Staged loading is the ability to create a space between two clean-dirty lines. The first clean-dirty line being between the chute and back of the livestock trailer. The second clean-dirty line, between the barn and space where pigs are loaded out from. In many cases this space would be a separate alley way or room. The staged loading method applies to instances where pigs are being removed from a barn. For example, cull sows, nursery pigs moving to the finisher or during marketing. The purpose of staged loading is to prevent viruses and bacteria on the trailer from coming onto the farm.

The three failures

When evaluating biosecurity practices investigators think in terms of the three failures. All three of these criteria must be met in order to transmit viruses and bacteria from one source to a group of pigs. The first failure is when a carrying agent becomes contaminated. The second, is failure to mitigate contamination on a carrying agent when it occurs. Finally, the third failure occurs when the bacteria or virus from a carrying agent contacts a new group of pigs. Staged loading aims to address and prevent the third failure from occurring.

Employee training

When implementing any new practice, training is critical. With conventional loading methods, there is emphasis on the middle person in the load out process going back to where the pigs are being sorted, preventing the sorters from walking the pigs as far. During staged loading, this middle person must stay in the load out area, outside the barn's clean-dirty line. Painting a visible line on the floor is one way to show a clean-dirty line. However, physical barriers are most effective when working with people and animals.

Research

Dr. Holtkamp and his team conducted a research trial to evaluate the efficacy of staged loading. Glow germ powder was mixed with wood chips and placed at the back of the trailer. 20 different grow finish sites were evaluated, over 10 days of traditional loading followed by 10 days of staged loading. After all pigs were loaded, a UV flashlight was used to evaluate contamination using a grid with 5cm x 5cm squares. Squares where glow germ illuminated were considered positive or contaminated. Results indicated a significant reduction in barn alley way contamination, when using staged loading. A physical barrier, to reduce pigs moving backwards in to the barn, could have reduced this contamination even more. The top of the chute had the most contamination, no matter which loading procedure was followed. A complete article summarizing this work can be found at:

https://www.aasv.org/shap/issues/v29n5/v29n5p234.html.

To Listen to this full podcast please visit: https://globalagnetwork.com/pigx/podcast/season-3-episode-2-the-definition-and-purpose-of-staged-loading



