

## Position Statement: Every pig barn should have a minimum of a Danish Entrance

**Rationale:** The introduction of PRRS virus and other diseases into herds occurs through a number of routes including infected pigs, semen, aerosol and non-porcine vectors. In cold conditions with adequate moisture, the survival of PRRS virus outside of the pig is optimized. Mechanical transmission of PRRS virus over long distances has been demonstrated to be a frequent event. It is clear that PRRS virus has the ability to move from off-site to on-site and can certainly travel as far as the pig barn door. The biosecure entrance to the pig barn must prevent the movement of PRRS virus from “on-site” to “in-barn”. Effective prevention of PRRS virus entry also allows for the prevention of many other infectious diseases concurrently.

Contaminated coveralls, boots and hands of personnel can transmit PRRS virus to naïve pigs following direct contact with infected pigs. Fortunately, sanitation protocols are effective in preventing the transmission of PRRS virus by fomites or personnel from infected to naïve pigs. People entering the pig barn should change coveralls, boots, and wash their hands before entering the pig barn. Several designs are available for accommodating this process while minimizing the risk of cross contamination from outside boots, clothing and unwashed hands to clean in-barn clothing, boots and hands.

The Danish Entry system is a simple biosecure entrance system that has been scientifically proven to reduce the risk of cross contamination from outside to inside and accommodates a change of clothing, boots and hand-washing prior to entry to the pig barn.

### A Danish Entry should:

- be the only entrance to the pig barn
- consist of a clean and dirty area
- allow people to remove their outer clothing and shoes in the dirty area
- include a place to wash and disinfect hands
- allow no boots in the slatted passage between the dirty area and the clean area
- provide clean protective outer clothing and boots in the clean area for employees and visitors

### References

Dee, S.A., Torremorell, M., Rossow, K., Otake, S., and Faaberg, K. 2001. Identification of genetically diverse sequences of PRRSV in a swineherd. *Can. J. Vet. Res.* 65:254-260.

Dee, S.A., Deen, J., Rossow, K.D., Mahlum, C., Otake, S., and Joo, H.S. Mechanical transmission of porcine reproductive and respiratory syndrome virus through a coordinated sequence of events during cold weather. *Can. J. Vet. Res.* (Submitted for publication).

Otake, S., Dee, S.A., and Rossow, K.D. 2002. Transmission of PRRSV by contaminated fomites (boots and coveralls). *Journal of Swine Health and Production.* 10: 59-65.

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### Danish hog barn entryway

