

**Invitation to veterinarians and producers responsible for sow farms**  
**Characterization of dead animal removal facilities, structures, and practices on sow herds**

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Pork producers in the US are still facing challenges in preventing disease outbreaks among sow herds. One such disease is Porcine Reproductive and Respiratory Syndrome (PRRS). The economic losses from PRRS in the US alone are estimated to exceed USD 650 million per year [1]. The disease is mainly transmitted through contact with infected animals [2]. As a result, introducing infected pigs to a farm increases the risk of an outbreak [3,4]. Biosecurity measures taken on farms, such as controlling the movement of personnel, vehicles, and fomites [5–9], are recognized as important in preventing PRRS. However, one aspect that is often overlooked is the removal of dead animals from farms. Farms that do not perform on-site dead-animal processing are at greater risk of PRRS than those that do [10]. Despite this, characterization of facilities, structures, and procedures used to handle dead animals on sow farms in the US is not available.

The goal of this study is to characterize the facilities, structures, and practices of dead animal removal from sow farms. We believe that particularities on this process may contribute to disease spread in the US swine herd. Our goal is to ultimately allow a better assessment of the risk that this activity poses to sow farms and to identify aspects that the industry could improve to further enhance the efficiency of sow farm operations.

**We are currently seeking veterinarians and producers overseeing sow farms to enroll in this project. Volunteers are asked to provide the Standard Operational Procedure (SOP) for dead animal removal of their sow farm(s), or in case such document does not exist, to inform us of this. Our team will then summarize the available SOP's and use those to create a survey to assess the facilities, structures, and practices on selected sow farms that will be visited in person beginning in late August 2023.**

We kindly request veterinarians or producers that are willing to volunteer to confirm their interest and availability to join the project via email to Igor Paploski ([ipaplosk@umn.edu](mailto:ipaplosk@umn.edu)) or Brenna Werner ([werne412@umn.edu](mailto:werne412@umn.edu)) by the end of August 2023.

We believe that your active participation will be instrumental in achieving the project's goals and creating a positive impact regarding the dead animal removal in sow farm operations. We look forward to collaborating with all of you, as we strive to advance best practices and enhance the biosecurity of sow farms, improving the overall health status of the US swine herd.

## Reference

1. Holtkamp DJ, Kliebenstein JB, Neumann EJ, Zimmerman JJ, Rotto HF, Yoder TK, et al. Assessment of the economic impact of porcine reproductive and respiratory syndrome virus on United States pork producers. *J Swine Heal Prod* [Internet]. 2013;21(2):72–84.
2. Bierk MD, Dee SA, Rossow KD, Otake S, Collins JE, Molitor TW. Transmission of porcine reproductive and respiratory syndrome virus from persistently infected sows to contact controls. *Can J Vet Res* [Internet]. 2001 Oct;65(4):261–6.
3. Machado G, Vilalta C, Recamonde-Mendoza M, Corzo C, Torremorell M, Perez A, et al. Identifying outbreaks of Porcine Epidemic Diarrhea virus through animal movements and spatial neighborhoods. *Sci Rep* [Internet]. 2019 Dec 24;9(1):457.
4. VanderWaal K, Deen J. Global trends in infectious diseases of swine. *Proc Natl Acad Sci* [Internet]. 2018 Nov 6;115(45):11495–500.
5. Pitkin A, Deen J, Dee S. Further assessment of fomites and personnel as vehicles for the mechanical transport and transmission of porcine reproductive and respiratory syndrome virus. *Can J Vet Res*. 2009;73(4):298–302.
6. Lowe J, Gauger P, Harmon K, Zhang J, Connor J, Yeske P, et al. Role of Transportation in Spread of Porcine Epidemic Diarrhea Virus Infection, United States. *Emerg Infect Dis* [Internet]. 2014 May;20(5):872–4.
7. Kikuti M, Drebes D, Robbins R, Dufresne L, Sanhueza JM, Corzo CA. Growing pig incidence rate, control and prevention of porcine epidemic diarrhea virus in a large pig production system in the United States. *Porc Heal Manag* [Internet]. 2022 Dec 7;8(1):23.
8. Velasova M, Alarcon P, Williamson S, Wieland B. Risk factors for porcine reproductive and respiratory syndrome virus infection and resulting challenges for effective disease surveillance. *BMC Vet Res* [Internet]. 2012;8(1):184.
9. Kim Y, Yang M, Goyal SM, Cheeran MC-J, Torremorell M. Evaluation of biosecurity measures to prevent indirect transmission of porcine epidemic diarrhea virus. *BMC Vet Res* [Internet]. 2017 Dec 5;13(1):89.
10. Lambert M-È, Arseneault J, Poljak Z, D'Allaire S. Epidemiological investigations in regard to porcine reproductive and respiratory syndrome (PRRS) in Quebec, Canada. Part 2: prevalence and risk factors in breeding sites. *Prev Vet Med* [Internet]. 2012 Apr 1;104(1–2):84–93.