

Invitation to participate in SHIC-funded research project:

Enhancing Biosecurity in Swine Operations: Investigating Wildlife Interactions on Swine Farms

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Key points:

- Swine producers often report wildlife activity in and around mortality handling structures, especially dead boxes and composting bins. Our previous research shows that wildlife frequently visits these sites, often consuming or dispersing carcass material.
- This research aims to better understand wildlife activity around swine mortality management structures and to identify ways to reduce the biosecurity risks these visits may pose.
- **We are looking for additional farms to monitor wildlife activity in and around dead boxes and composting bins. We would like to invite you to join this project!**

Overview

U.S. pork producers face major challenges in preventing disease outbreaks, and these risks potentially increase when wildlife interacts with pig carcasses stored for rendering or composting. Our previous research shows that wildlife frequently visits these sites, often consuming or dispersing carcass material. These behaviors create important biosecurity concerns, particularly with the ongoing threat of foreign animal diseases such as African Swine Fever (ASF). As wild boar populations expand across North America, it is increasingly important to understand and mitigate the potential for disease introduction and spread.

Methods

This project documents wildlife presence, frequency, and behavior around mortality management sites and identifies the factors associated with wildlife activity. To accomplish this, we would like to install cameras at farm mortality handling structures to monitor wildlife activity (see picture below).

- Solar-powered cameras with motion activated sensor will capture wildlife activity and immediately upload videos to the cloud and no recordings are kept on the equipment.
- You are **not** responsible for camera maintenance or data collection.
- The goal is to keep cameras at the mortality handling structure for 12 months (you may withdraw at any time by contacting our team).
- Cameras are motion-activated, they **will** record animals, vehicles, humans and other events that trigger the motion sensor. Because the camera cannot differentiate between humans and animals, occasional recordings of people may occur during routine farm activities. The project **does not** attempt to identify individuals, and **videos containing people will not be used or shared**. Footage containing farm personnel will not be used for this project and can be deleted if you prefer.
- A UMN sign will be placed on the camera post notifying all visitors that recording is in progress.



Photos: Left, camera installation, showing post, visibility signage, informative sign, camera and solar panel. Right: Imagery of coyotes visiting composting (top) and rendering (bottom) farms. These images were captured as part of this project and illustrate the type of wildlife interaction with dead management structures we are trying to document.

Participating farms are asked to:

- Inform employees that video recording will occur for approximately 12 months.
- If using rendering services, provide the rendering company's name so they can be notified of the recording.

Expected Outcomes

Results from this study will provide the swine industry with a detailed characterization of mortality structures and wildlife visitation patterns. This will help with recommendations to reduce wildlife access, including structural improvements or management strategies

Neither farms nor individuals appearing in recordings will be identified in any presentation or publication.

If you think that wildlife can pose a biosecurity risk for the swine industry and it is important to better understand how they are interacting with pig carcasses, please email us! We can work together with you and help the improve the industry!

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