

# BIOSECURITY AT THE TOP OF THE PIG PRODUCTION CHAIN:

## IDENTIFICATION OF CRITICAL POINTS

Rebollo-Igual P.<sup>1</sup>, Botero H.<sup>1</sup>, Yeste-Vizcaino N.<sup>2</sup>, Martínez C.<sup>2</sup>, González-Bulnes A.<sup>2</sup>, Mateu E.<sup>1</sup>, Allepuz A.<sup>1</sup>

<sup>1</sup>.Department of Animal Health and Anatomy, Autonomous University of Barcelona, 08193 Cerdanyola del Vallès, Barcelona, Spain.

<sup>2</sup>.Cuarte, S.L., Grupo Jorge, 50120 Monzarbarba, Zaragoza, Spain.

### BACKGROUND

The first production stages, including farms that supply animals to the rest of the system, are crucial, as diseases introduced at this point can spread downstream throughout the entire system.

### OBJECTIVE

The present study was performed within the framework of BIOTEGANIA, a multidisciplinary project, aimed at assessing sow farms' biosecurity to identify key weaknesses.

### MATERIALS AND METHODS



biocheck  
.ugent

**Data collection:** A risk-based scoring questionnaire (Biocheck.UGhent) assessed biosecurity in **36** sow farms in Aragón, Spain.

The questionnaire was completed face-to-face with farm veterinarians and/or farm owners and managers.



**Type of farms included:**

Multiplier farms N=5

Sow farms N=31



**Data processing and descriptive analysis** were performed using R.

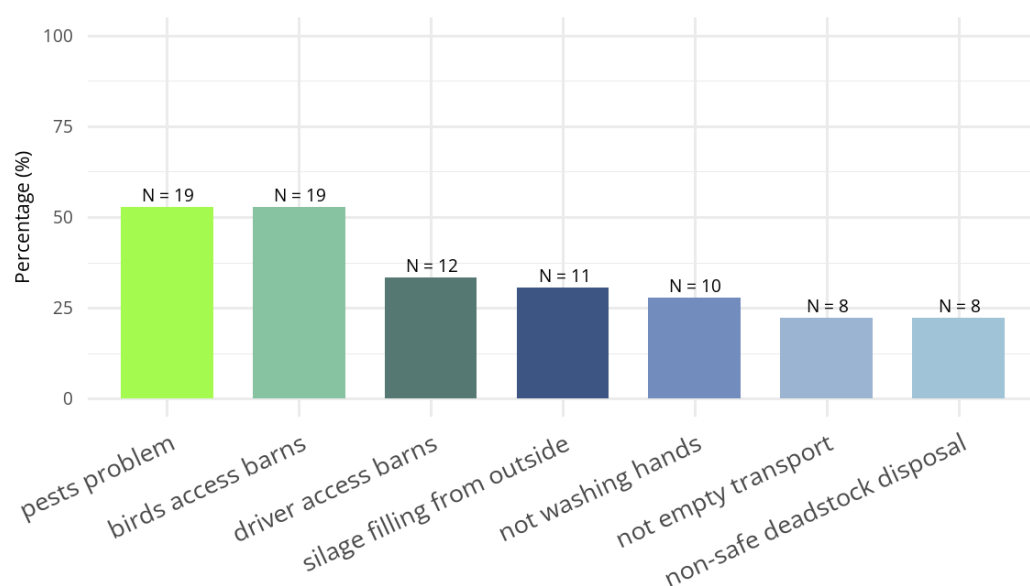


Figure 1. Autonomous Community of Aragón.

### RESULTS

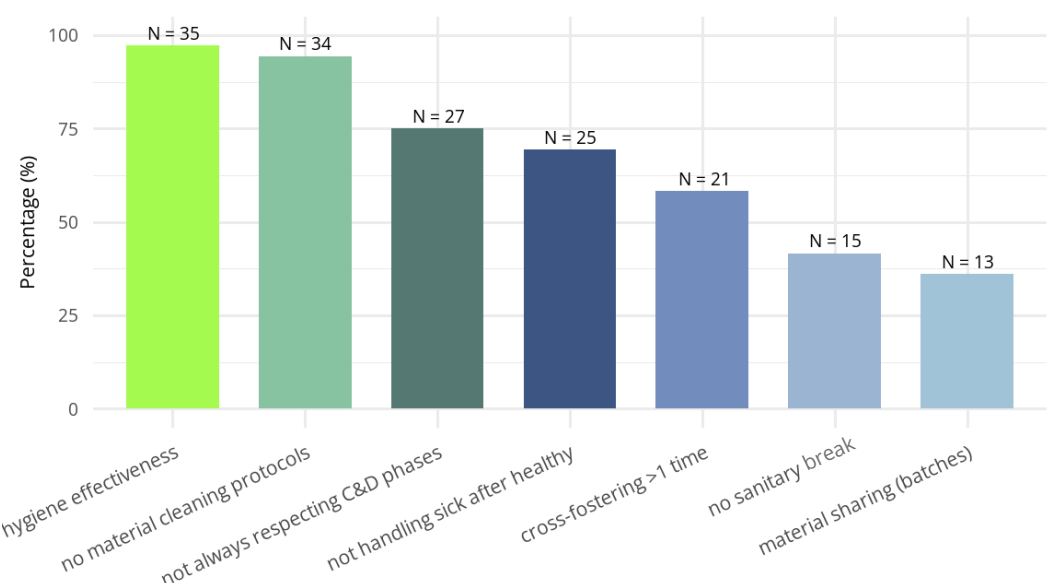
#### Areas to improve

#### External biosecurity



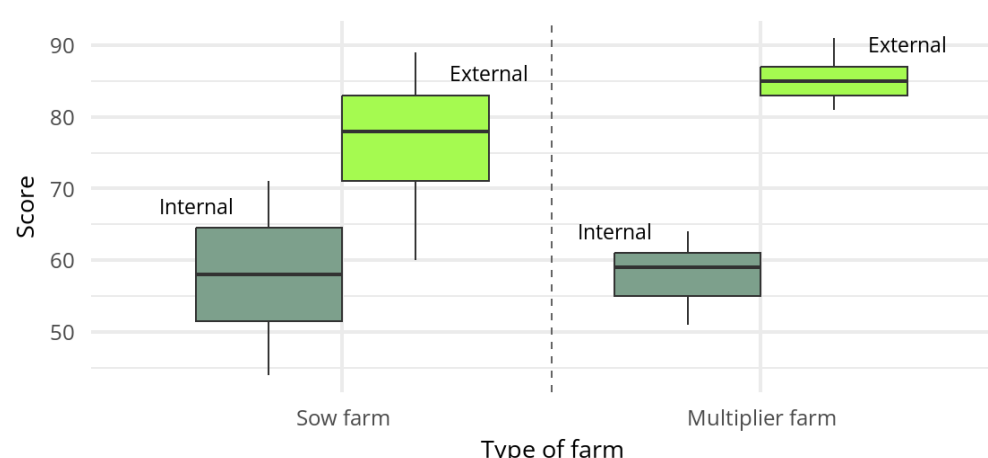
**Figure 2. External biosecurity findings.** Rodents and birds were found in 53% of barns. Drivers accessed barns in 33%, and 30% couldn't fill silages externally. Handwashing wasn't practiced in 28%. In 22%, trucks arrived carrying sows from other farms. Deadstock disposal was accessible to other animals in 22%.

#### Internal biosecurity



**Figure 3. Internal biosecurity findings.** Cleaning and disinfection phases weren't respected (75%) or checked (97%), no sanitary break was respected in 42%, sick animals weren't manipulated after healthy ones (69%), cross fostering more than once (58%). There was not protocol for material cleaning (94%), and it was shared between batches in 36% of farms.

#### Overall biosecurity (Biocheck ® scores)



**Figure 4. External and Internal biosecurity scores.** External biosecurity scores are higher in both types of farms (multiplier and sow farms), specially in multipliers. Internal scores are similar in both.

### DISCUSSION AND CONCLUSIONS

- Studied farms must minimize potential pathogen introduction risks due to their **crucial role in the system**.
- Key biosecurity improvements include restricting clean zone access, enforcing cleaning and disinfection protocols, safer deadstock disposal, and better management of sick animals.
- Work in progress. Future research will explore the effect of biosecurity on pathogens spread between farms.

Contact:  
paula.rebollo@uab.cat  
PhD student

