BioSecure
Enhanced and cost-effective biosecurity in livestock production

UNIVERSITY OF COPENHAGEN

PRACTICE ABSTRACT #29

Exploring biosecurity focus in Danish outdoor sheep-, cattle- and pig-farms

Biosecurity level of farms can be assessed with scoring tools such as Biocheck.UGent

The objective of a veterinary master project was to investigate how underlying factors between and within farms with different animal species could be identified and assumed to influence biosecurity scores of the farm.

An increased number of animals are held in outdoor systems in Denmark, thus biosecurity assessments in these production systems requires focus.

During 2024, 37 outdoor farms were visited by researchers from the Biosecure project;
18 sheep farms, 10 cattle farms and 9 pig farms.

Biocheck schemes (https://biocheckgent.com/) for assessment of biosecurity was filled during the herd visits, and biosecurity scores were calculated by the Biocheck system.

In general, there was a lot of variation in biosecurity scores between and within farms and animal species.

Of the visited farms, pig farms had the highest total biosecurity score of 54%, compared to cattle (51%) and sheep farms (42%).

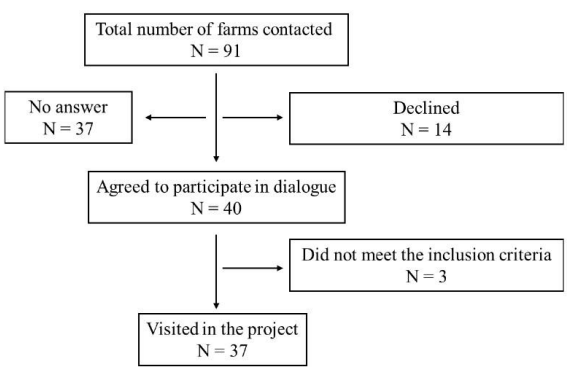


Figure 1: Recruitment of farms for biosecurity assessment visits

Cattle farms had the highest external biosecurity score, whereas pig farms had the highest internal biosecurity scores.

In general, the biosecurity scores reflected the organization of the animal species production system. In example, purchase of animals is less common in Danish cattle farms compared to pig and sheep farms. If there is no purchase of animals, the external biosecurity score increases.

17% of the questions from the Biocheck schemes were directly comparable across animal species.

Via an exploratory factor analysis, two underlying factors were identified: A “primary” biosecurity factor concerning purchase and reproduction, and a more “secondary” factor concerning biosecurity measures against secondary contact with other farms (e.g. hygiene locks, boots and farm clothes available).

There is a lot of variation in biosecurity measures applied between Danish outdoor farms, within and between animal species.

Pig farms had the highest total biosecurity score (54%), compared to cattle (51%) and sheep farms (42%).

Cattle farms had the highest external biosecurity score, and pig farms had the highest internal biosecurity scores.

A factor analysis indicated that there are different structures, industry standards and biosecurity focus across animal species.

www.biosecure.eu

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