

Evaluation of biosecurity in 140 Danish pig herds using Biocheck.ugent®

Amanda Brinch Kruse¹, Christina Johansen¹, Lis Alban², Liza Rosenbaum Nielsen¹

¹ Department of Large Animal Sciences, University of Copenhagen, Denmark, amanda@sund.ku.dk

² Danish Agriculture & Food Council, Denmark



Background

A high level of biosecurity in pig production will minimize the risk of introduction and spread of disease agents within and between pig herds. Therefore, focus on biosecurity is important for prevention of diseases

Objective

To evaluate the biosecurity level in Danish pig herds using a pre-developed questionnaire and scoring system called Biocheck.ugent® previously developed at Ghent University



Materials & Methods

Telephone interview of Danish sow herd owners in 2015



Questions from Biocheck.ugent®

- Risk-based weighted scoring system
- Individual farm scores obtained online
- One score (0-100%) for each subcategory



Table 1 Subcategories within external and internal biosecurity covered by the scoring system Biocheck.ugent®

External biosecurity, subcategories
A: Purchase of animals and semen
B: Transport of animals, removal of manure and dead animals
C: Feed, water and equipment supply
D: Personnel and visitors
E: Vermin and bird control
F: Environment and region

Internal biosecurity, subcategories
A: Disease management
B: Farrowing and suckling period
C: Nursery unit
D: Fattening unit
E: Measures between compartments and the use of equipment
F: Cleaning and disinfection

Some answers was used as variables in a factor analysis.
Data are shown in poster no. 36

Results & Discussion

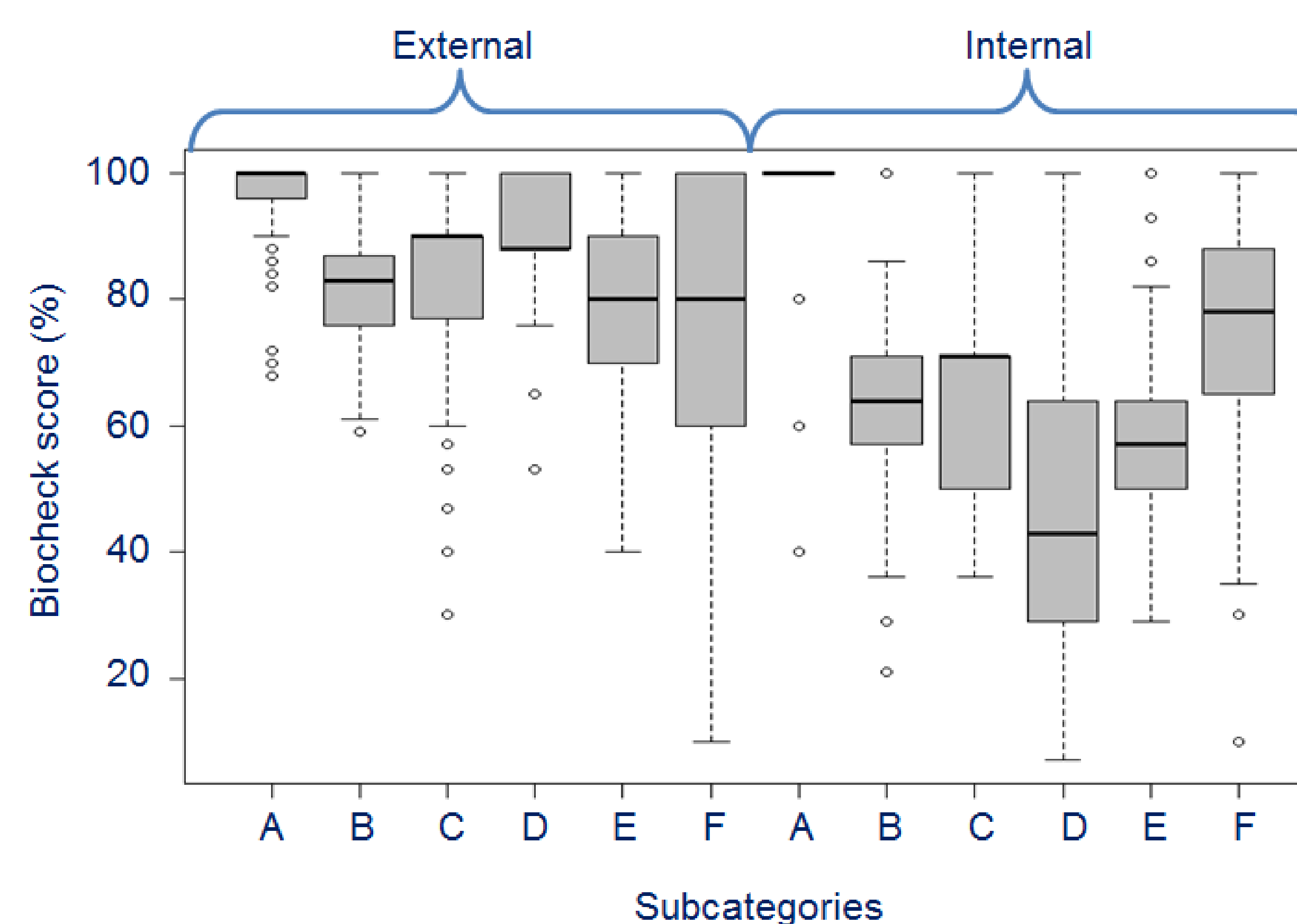
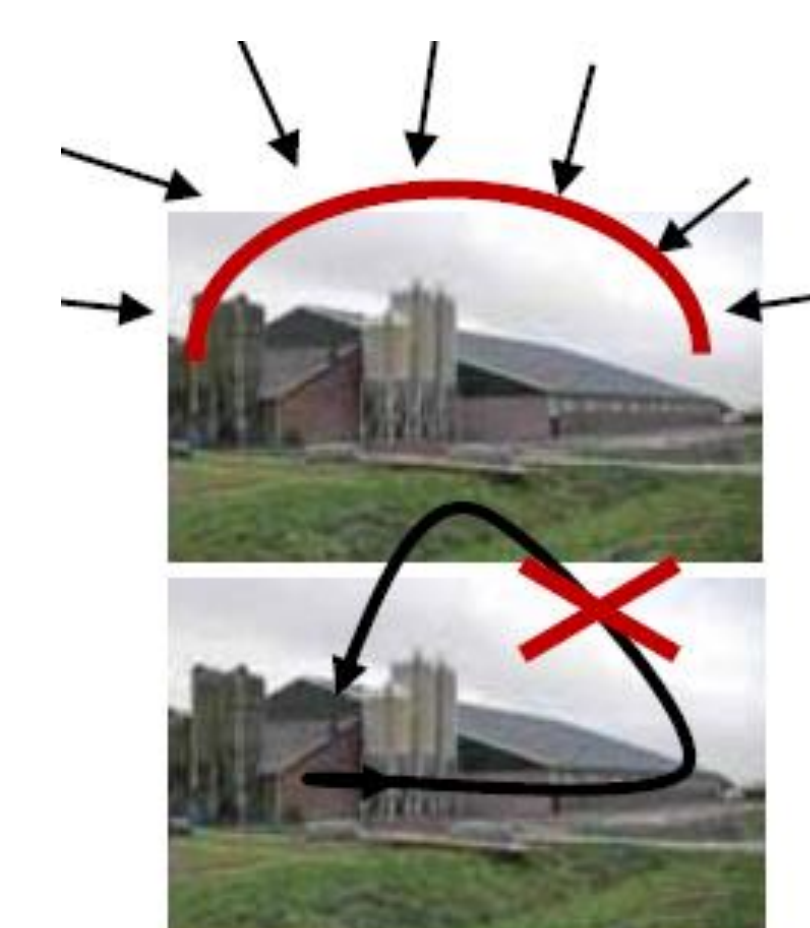


Figure 1 Boxplots showing the distribution of scores within each subcategory (table 1) for external and internal biosecurity obtained using the scoring system Biocheck.ugent®

High level of external biosecurity

- Because of widespread use of the Specific Pathogen Free (SPF) herd health system



Lower level of internal biosecurity

- In and between different compartments
- Especially low average score for fatteners
 - Some of the herds enrolled in this study also had fattening pigs, but usually in low numbers - therefore no primary biosecurity focus for this unit



These results are based on herds with a primary production of weaners (7-30 kilo). The results could therefore be different if conducted with other type of herds

Conclusion: High level of external biosecurity in Danish pig herds. Regarding internal biosecurity, there is room for improvement, especially in and between the different compartments

Next step: Is there an association between biosecurity level and productivity measures, vaccination programmes and antimicrobial usage? – to be elucidated at next year's SVEPM