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Do Biosecurity and Management Policies Coincide with Farm Returns?

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Introduction

Preventive measures can reduce the risk of animal health disorders, to which modern pig production is sensitive. However, empirical studies on possible correlation between biosecurity and return on production are unavailable.

We examine whether biosecurity, housing conditions and the monitoring of production are able to contribute to the profit margin of a grow-finish swine farm. We provide *preliminary* empirical results regarding the relevance of different policies.

Data and methods

Empirical data were gathered in collaboration with HK Agri Ltd, Finland. Other data were based on previous studies. The results were estimated with a two-stage procedure (Fig. 1).

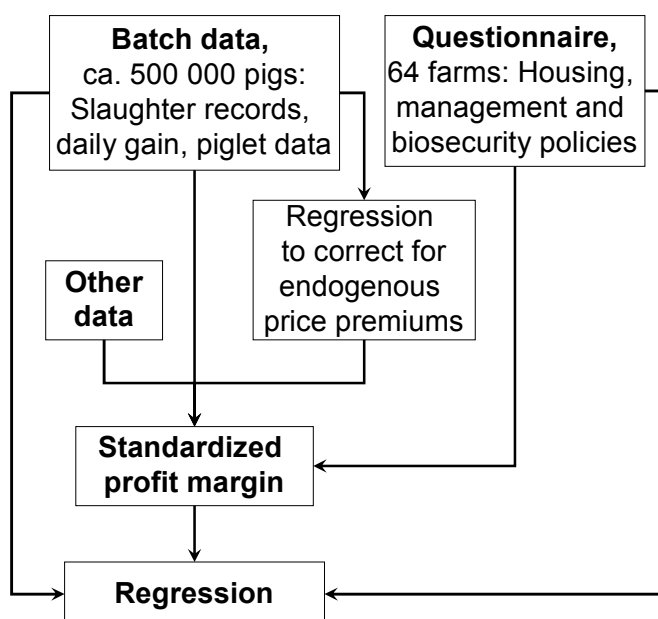


Figure 1. The use of data in a model to estimate the correspondence between standardized profit margin and policies applied on the farm.

Results

Low prevalence of carcass condemnations and disease findings at slaughter, and large farm size contributed to the profit margin.

Farms that cleaned and disinfected the facility between batches or did not allow unnecessary persons in the facility had a higher standardized profit margin than those following other policies. Farms that culled pigs that did not respond to medication within 3 days and those that loaded pigs for delivery via a separate loading room had a tendency to higher profit margin. A higher profit was associated with farms monitoring the economic results of batches (Fig. 2).

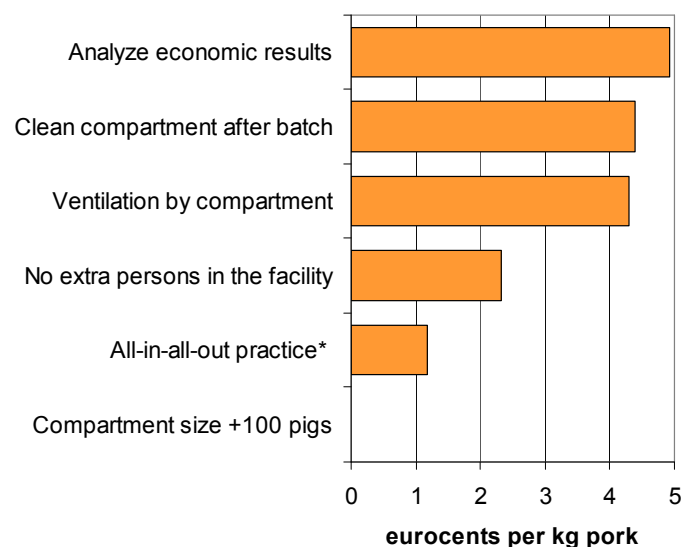


Figure 2. Correspondence between profit margin and selected measures.

Conclusion

The all-in-all-out practice, routine cleaning and disinfection practices and restrictions on the visitors allowed in the facility were associated with improved profit margin and reduced risk. Besides biosecurity, it is important to promote the manager to monitor production and take corrective measures should disorders occur.