**Costs of biosecurity at farm level – a good investment**

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Introduction: In order to maintain a high standard of health, animal welfare, meat safety and traceability in Danish swine herds, a private scheme called the DANISH Product Standard was established in 2007. In 2010 DANISH Transport Standard (DANISH) was established. The main purpose of DANISH is to keep Denmark free from unwanted diseases in hoofed animals. Denmark is highly dependent on pig exports, and would suffer extensive economic losses should an outbreak of disease occur.

Materials and methods: The DANISH Standard is a voluntary scheme which addresses pig herds, hauliers of pigs and cattle, exporters and DanBred distributors, cleaning and disinfection stations, and collection centres. The Danish pig producers use 2.6 mill. Euro (2019) on the DANISH Transportstandard every year. Approved DANISH hauliers are required to use DANISH cleaning and disinfection stations before loading and transporting from DANISH approved herds. Countries outside the EU, countries with borders out of the EU, and countries with certain notifiable diseases from the OEI-list are all considered high risk countries. In Denmark, it is a requirement to register all transports of pigs and cattle with the Central Husbandry Register (CHR). This transport data is merged with a database at the cleaning and disinfection station to verify DANISH compliance. EU-vehicles performing long transports are monitored via GPS, and will undergo an imposed quarantine from 12 hours to 7 days, in Denmark if GPS data cannot document and verify that said vehicle has entered only low risk countries within the last 7 days. The quarantine is also imposed if a vehicle has entered any foreign country prior to a national transport. DANISH requires that all vehicles have valid cleaning certificates, and that quarantines are met, before vehicles approach a herd. DANISH approved herds are not allowed to receive animals from non-DANISH approved herds, nor deliver to a non-DANISH approved collection centre. To insure compliance, a penalty will be imposed to participants who do not meet these DANISH requirements.

There has been a project “Danish Disease Control” where we considered a new surveillance system to improve biosecurity in Denmark. In the project, we found that Danish farmers spend about 6,7 million Euro (50 million. DKK) per year on alerts and corrections of movements of live animals which is very important in the work with contagious diseases. 3.7 mill Euro (27.6 million. DKK) of the 6,7 million Euro (50 millions) is attributable to the pig industry. In addition, there are costs for the industry each time incorrect information is recorded in the movement databases. There would be a net profit per pig producer per year of approx. 329 Euro (DKK 2,456) with the introduction of Danish Disease Control. Still this has not been implemented as it is always very difficult to ensure the economic benefit of biosecurity as there has never been this disaster in Denmark.

Results: The majority (95%) of the pigs produced in Denmark are included in the DANISH scheme. Participation increases revenue to farmers and decreases the risk of fatal disease outbreaks. The Danish Disease Control has not been implemented in Denmark.

Conclusion: The implementation of the DANISH Transport Standard, which requires additional cleaning and disinfecting of cattle and swine transport vehicles traveling from outside Denmark to Danish livestock herds, insures a low level of dissemination from vehicles. In addition, the quarantine further reduces the risk of dissemination from high risk countries. In other words, DANISH Transport Standard insures low risk of dissemination from foreign countries to Denmark, and between Danish herds. It would be an advantage for biosecurity on the farm, to implement Danish Disease Control in Denmark, in the future.