Assessment of Biosecurity Practices in Estonian Beef Cattle Farms

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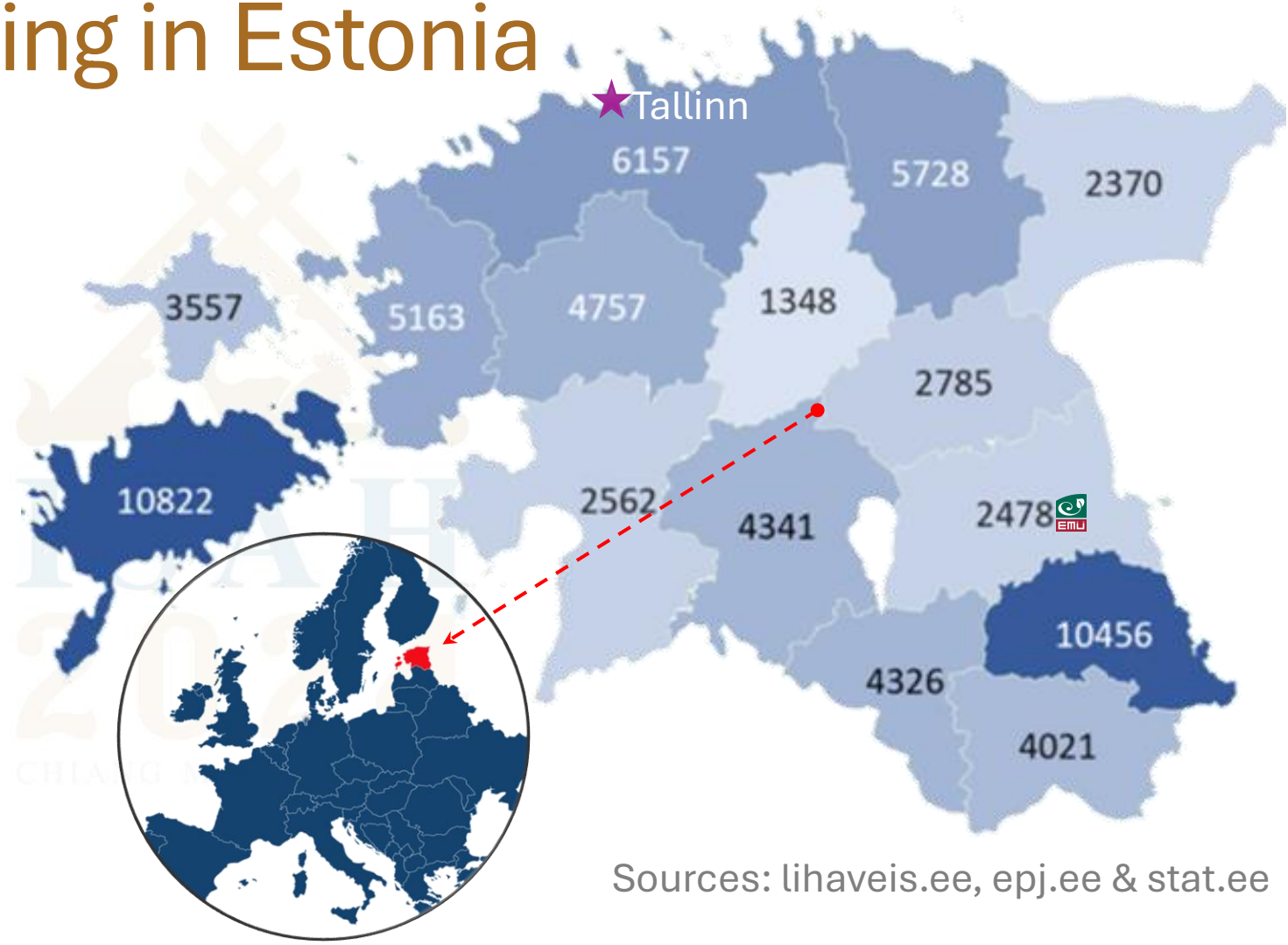
Beef cattle breeding in Estonia

- 73,751 animals.
- 29,091 suckling cows.
- 1,422 farms.
- Average farm size 20 cows.
- ~95% grass-fed beef.
- 40,358 (54.7%) organic.
- Animal recording:
  - 419 (29.5%) farms,
  - 34,795 (47.2%) animals,
  - 17,751 (51.0%) purebred.



Sources: lihaveis.ee, epj.ee & stat.ee

Beef cattle breeds

- 16 breeds:
  - Aberdeen-Angus – 25.2%,
  - Hereford – 18.3%,
  - Limousin – 16.2%,
  - Charolais – 13.8%,
  - Simmental – 11.5%,
  - Highland – 7.7%,
  - others – 7.3%.





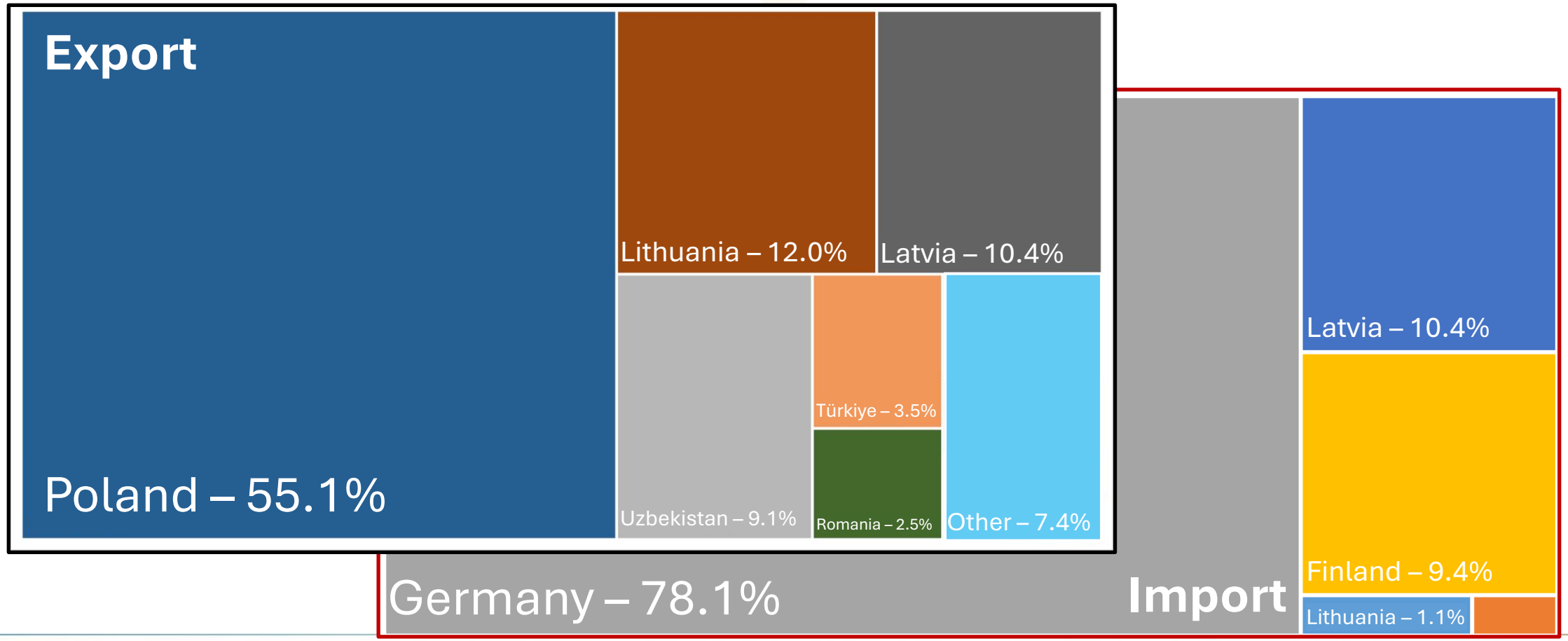

Source: A. Tänavots

Human consumption per capita, kg. Export, %

- Pork – 37.9
- Poultry meat – 27.6
- **Beef – 7.7**
- Other – 3.5
- Sheep meat – 0.4

Source: stat.ee

Live animals



Risks from outside

- Estonian cattle farmers are at risk from several infectious diseases prevalent in neighbouring countries, primarily due to the geographic proximity and the potential for cross-border disease transmission.
  - **Foot-and-Mouth Disease (FMD):** FMD has been reported in several neighbouring countries, such as Russia and Ukraine.
  - **African Swine Fever (ASF):** Although ASF primarily affects pigs, it poses an indirect risk to cattle farms through shared environmental and ecological factors.
  - **Bovine Tuberculosis (BTB):** This chronic bacterial infection can affect cattle and is known to be present in parts of neighbouring countries, such as Poland and Lithuania
  - **Brucellosis:** It is known to be present in some neighbouring countries, including parts of Russia and Belarus.
  - **Bluetongue:** Neighbouring countries like Sweden and Finland have reported cases, indicating a potential risk to Estonia due to midge migration and other factors.
  - **Johne's Disease:** It has been reported in neighbouring countries such as Latvia and Lithuania, necessitating continued surveillance and control measures in Estonia.
- Collaborative efforts with neighbouring countries to monitor and control these diseases can also help protect the cattle industry.

Local diseases and preventative measures

- List of viral diseases affecting cattle in Estonia:
  - Infectious rhinotracheitis.
  - Respiratory syncytial virus infection.
  - Parainfluenza-3 virus infection.
  - Adenovirus infection.
  - Bovine viral diarrhoea.
  - Bovine coronavirus (winter dysentery).
  - Bovine rotavirus infection.

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- According to **the Animal Disease Control Act** and the **Implementation Measures of the National Animal Disease Control Programmes**, cattle herds must be tested for:
  - Leukosis – twice a year.
  - Brucellosis – once every five years.
  - Tuberculosis – once every three years.
  - A farm veterinary report must be compiled once every three years.

Introduction

1

Importance:

Biosecurity is critical in preventing diseases in beef cattle farming.

2

Objective:

To map the status of biosecurity and disease control in Estonian beef cattle farms.

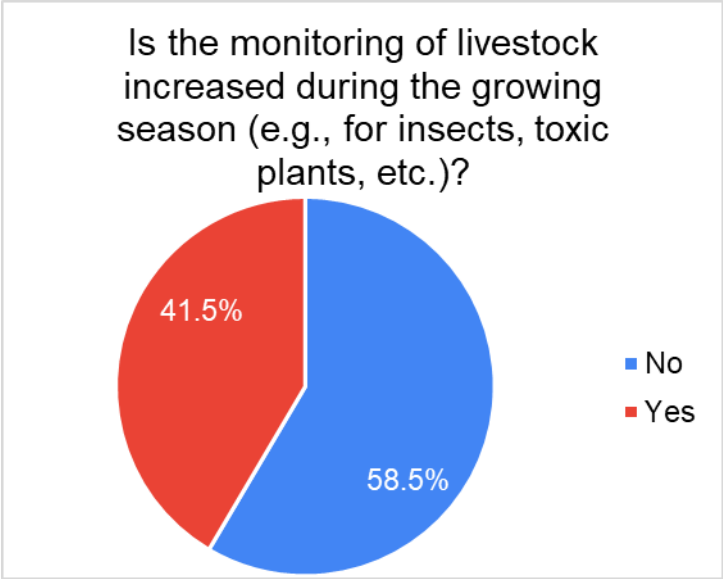
3

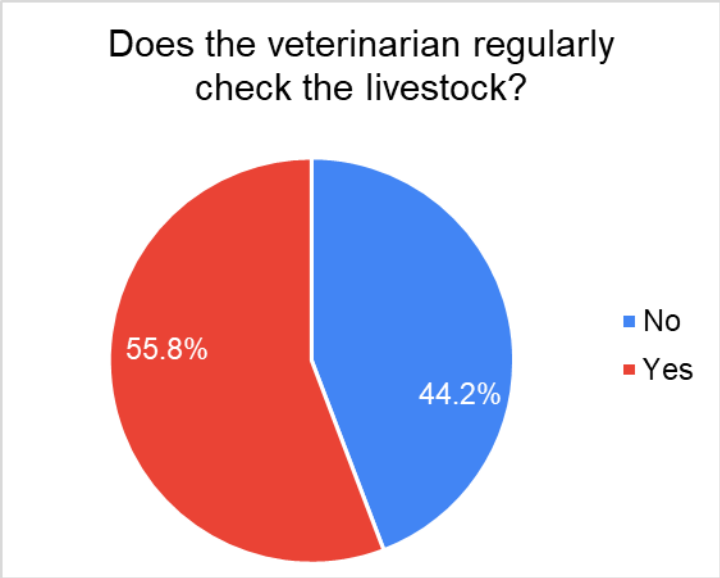
Methodology:

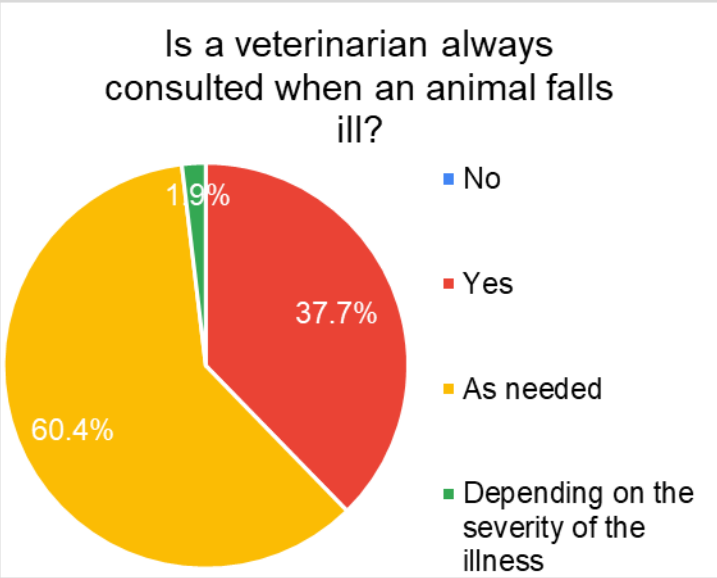
Survey conducted among 53 Estonian beef cattle farms between April 1 and May 1, 2021.

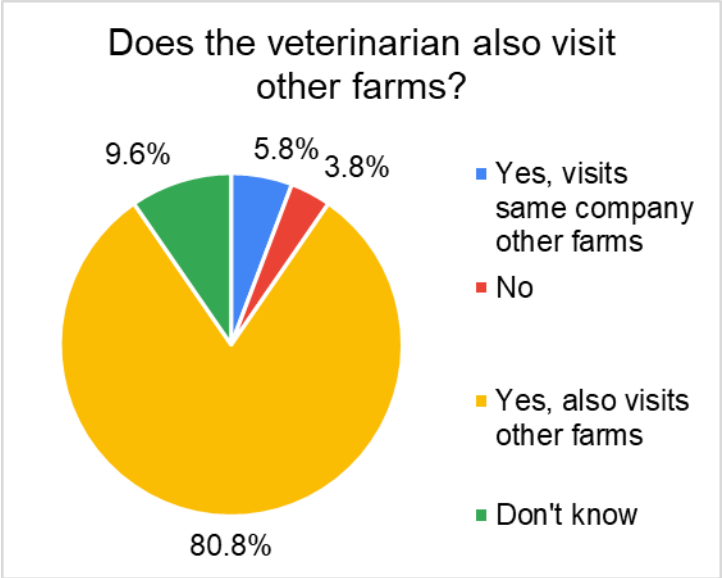
Key Findings 1/4

- **Veterinary and Insemination Services**
  - The use of veterinary and insemination services varies among farms.
  - Need to standardise veterinary service practices.



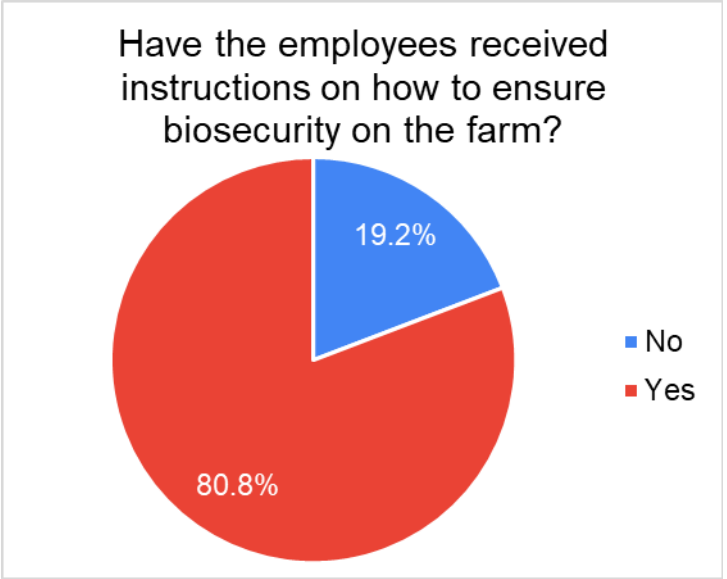


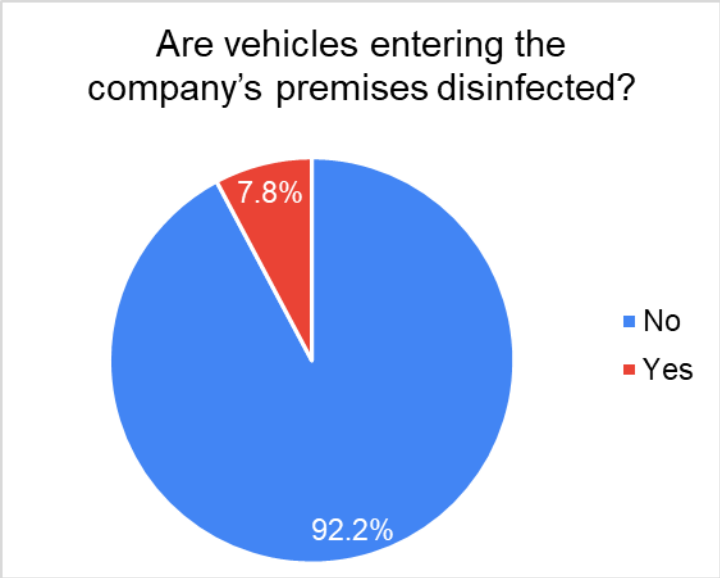


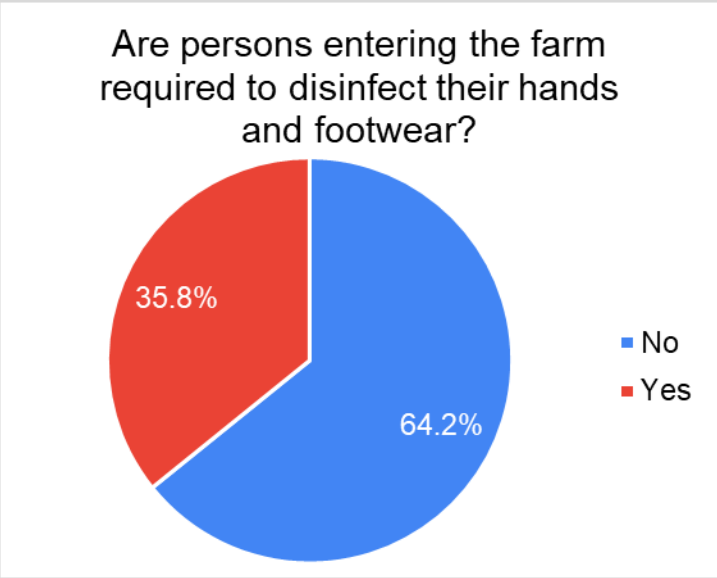


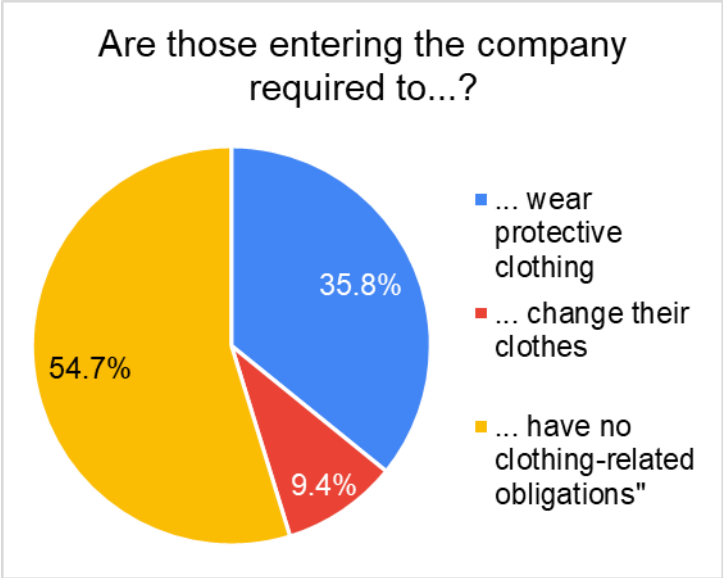
Key Findings 2/4

- **Disinfection and Entry Control**
  - Many farms do not implement adequate disinfection procedures.
  - Entry biosecurity measures need to be strengthened.



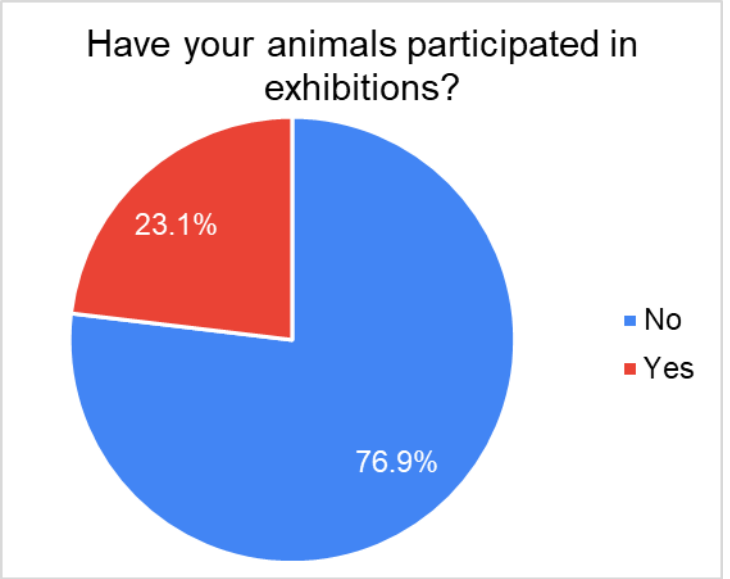


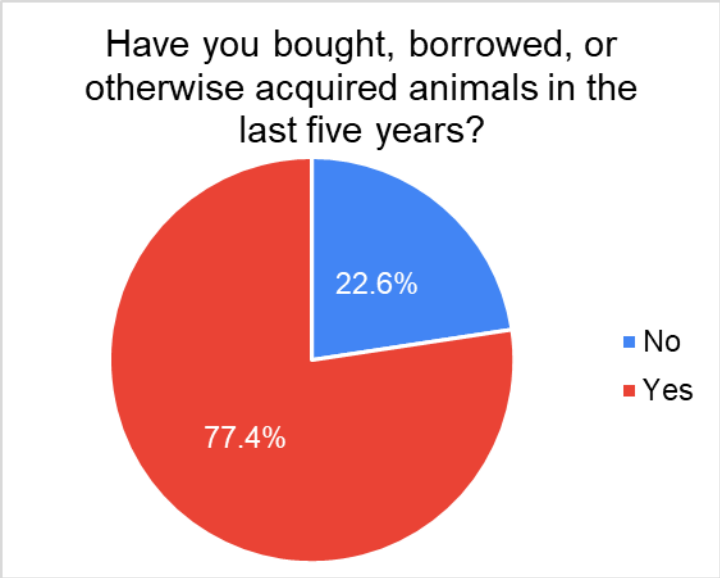


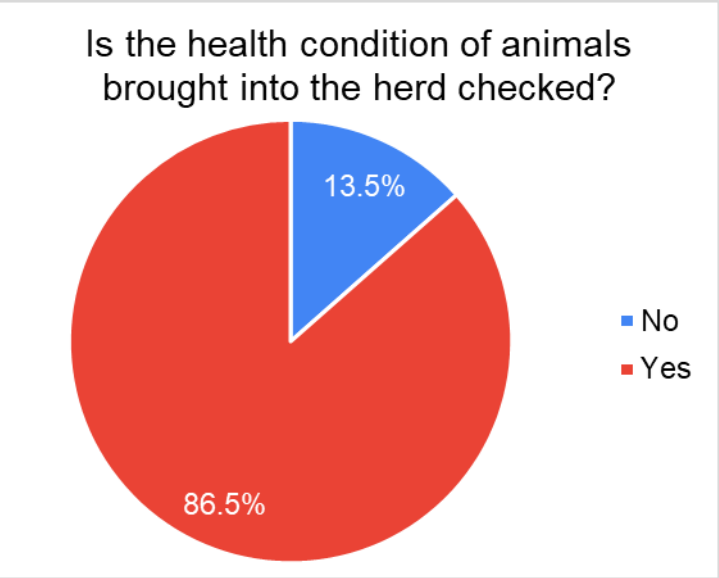


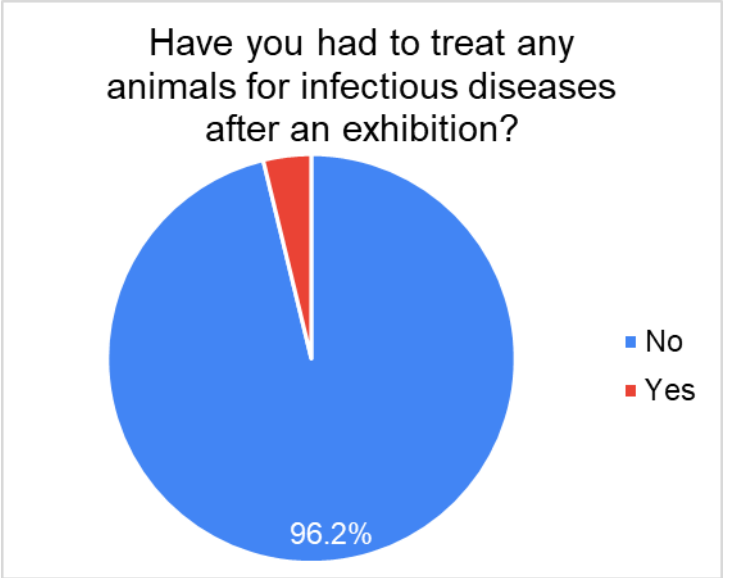
Key Findings 3/4

- **Risks Associated with Cattle Movement**
  - Risk of disease transmission when purchasing new animals.
  - Participation in exhibitions increases exposure to pathogens.



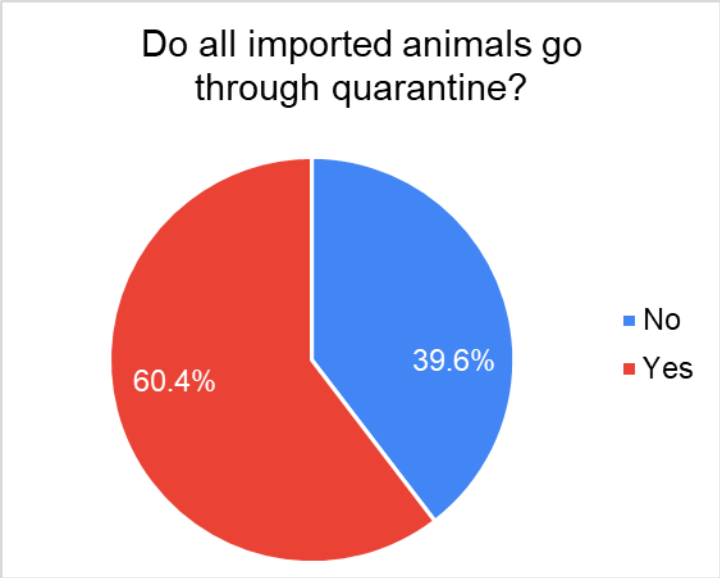


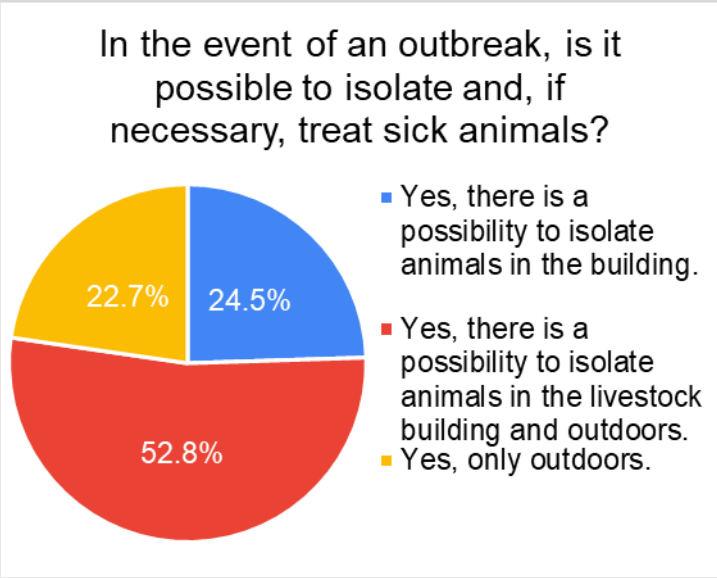


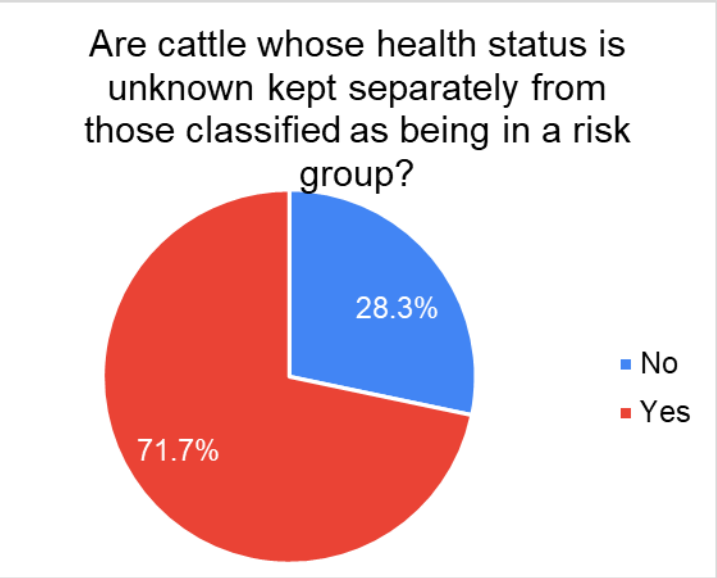


Key Findings 4/4

- **Animal Isolation and Quarantine**
  - Not all farms implement quarantine for new animals.
  - Quarantine is essential for ensuring biosecurity.







Recommendations and Practical Applications

- The implementation of biosecurity measures is varied but needs improvement.
- Farm size is not related to the level of biosecurity.
- Cattle farmers' daily activities on the farm directly impact the health of the cattle and, through this, the economic viability of the enterprise.

Conclusions

- **Risk Analysis:** Develop risk analysis and biosecurity strategies.
- **Education and Training:** Provide training and guidelines for farm workers.
- **Standardisation:** Harmonise biosecurity measures across all farms, regardless of size.

Biosecurity is shared responsibility!

A collaborative nature is required to effectively prevent and control the spread of diseases and contaminants within agricultural systems and beyond.

Thank you!

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