BioSecure
Enhanced and cost-effective biosecurity in livestock production

PRACTICE ABSTRACT # 43

Animal biosecurity policies: a weakest-link game

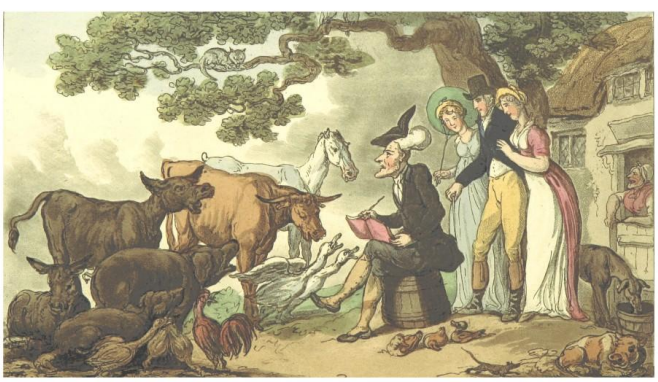
As **livestock production systems become increasingly interconnected** through international trade, animal transport, and cross-border supply chains, the risks from infectious animal diseases have grown substantially. Animal biosecurity can therefore **no longer be viewed solely as a set of farm-level practices**; rather, it depends on a broader and coordinated framework involving legislation, surveillance systems, crisis preparedness, stakeholder awareness, scientific expertise, and international cooperation.

The European Union (EU) has established a comprehensive regulatory framework centred on its Animal Health Law and supported by additional regulations governing official controls, animal movements, import procedures, disease surveillance, and emergency response mechanisms. The alignment of EU rules with international standards set by the World Organisation for Animal Health and the Codex Alimentarius contributes to both disease prevention and safe trade. Research and innovation further strengthen this framework through the development of vaccines, diagnostic technologies, digital traceability systems, and epidemiological risk-modelling tools.

While the EU provided the overarching legal and institutional architecture, **implementation is largely the responsibility of Member States**. National and regional authorities manage surveillance programmes, enforce hygiene and transport regulations, coordinate emergency preparedness, organize training activities, and work directly with farmers and industry stakeholders. Consequently, **the effectiveness of EU biosecurity policy depends heavily on the availability of financial resources, technical expertise, and administrative capacity at local level**.

As a result, enforcement and operational effectiveness vary considerably across countries and regions. Differences in financial and human resources often limit the uniform application of standards, while cross-border coordination during disease outbreaks may remain difficult. Gaps in surveillance data sharing can delay timely responses, and smaller farms frequently face barriers in accessing training, technical assistance, and financial support. In practice, although the EU has created a highly detailed regulatory system for animal biosecurity, much of **the economic and financial burden of implementation has been transferred to Member States, private operators, or other EU policy areas**, e.g. the Common Agricultural Policy.

From an economic perspective, biosecurity can be analysed as **a "weakest-link game"**: the efficacy of the entire system ultimately depends on its least prepared participant. **Strengthening coordination, institutional trust, and shared responsibility** therefore **remains essential** for the long-term effectiveness of animal biosecurity governance in Europe and a more direct involvement of the EU in supporting and consolidating national capacities is suitable.



Rowlandson, T. *Doctor Syntax Drawing after Nature*. In William Combe, *The Tour of Doctor Syntax, in Search of the Picturesque: A Poem*. 5th ed. London: R. Ackermann, 1813, p. 166.

- Animal biosecurity has become a systemic issue and EU institutions have developed a comprehensive animal biosecurity policy framework
- However, policy implementation largely depends on Member States' initiative and resources
- Significant implementation gaps persist across Europe due to disparities in Member States' capacities
- Biosecurity functions as a "weakest-link" game: the efficacy of the whole system depends on its least effective participant
- A more direct involvement of the EU in supporting and consolidating national capacities is suitable

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