BioSecure
Enhanced and cost-effective biosecurity in livestock production

PRACTICE ABSTRACT # 38

Biosecurity assessment of outdoor pig and small ruminant farms

Biosecurity is the foundation of animal health management and disease prevention, yet implementation across European livestock systems remains uneven. Existing monitoring tools focus mainly on intensive animal production, leaving major knowledge gaps in small ruminants and extensive or outdoor production systems. The Biocheck.Ugent biosecurity assessment scoring tools were extended to cover additional production species, including small ruminants (dairy and meat), alternative production systems such as outdoor pig production, and new sectors, including animal transport and feed mills. The new scoring tools for outdoor pig farms and small ruminants were fully developed, validated, and released online in 2024-2025, with early adoption across more than 20 countries.

Materials and methods

Tool development followed a structured, multi-step process involving international expert recruitment, checklist design and piloting, and rigorous weighting of biosecurity measures using standardized methods. The scoring tool for commercial outdoor pig production and small ruminant (meat and dairy) comprises of questions that are organized into subcategories for external biosecurity and internal biosecurity. So far, these tools have been used on 130 farms across 29 countries on 5 continents.

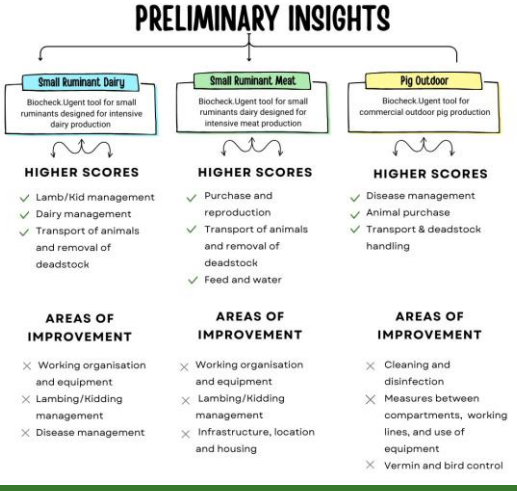
Preliminary insights by production system:

Small ruminant dairy: Higher biosecurity implementation in lamb/kid management, dairy management, and transport/deadstock handling; lower implementation in working organisation, equipment management, and lambing/kidding practices.

Small ruminant meat: Higher biosecurity implementation in purchase and reproduction, transport/deadstock handling, and feed and water management; lower implementation in working organisation, lambing/kidding management, and infrastructure and housing.

Outdoor pig production: Higher implementation in disease management, animal purchase, and transport/deadstock handling; lower scores in cleaning and disinfection, internal separation and equipment use, and vermin and bird control.

These insights show early uptake with farmers and advisors in several countries outside the project using the available tools. This demonstrates both the relevance of the questionnaires and their potential for broader adoption across diverse livestock systems to improve biosecurity.



These improvements make biosecurity assessment more practical and relevant for the farmers.

With Biocheck.Ugent, farmers gain clear and structured overview of their on-farm biosecurity situation. The tool helps them clearly identify what they are doing well and where improvement is needed.

By improving biosecurity, farmers can protect animal health, reduce disease risks and outbreaks and focus on overall productivity of their farms.

www.biosecure.eu

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