CVO Workshop, 5 November 2026



FROM AWARENESS TO ACTION: EFSA'S SOCIAL RESEARCH ON BIOSECURITY ON SHEEP AND GOAT FARMS

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CONTENT OF THE PRESENTATION

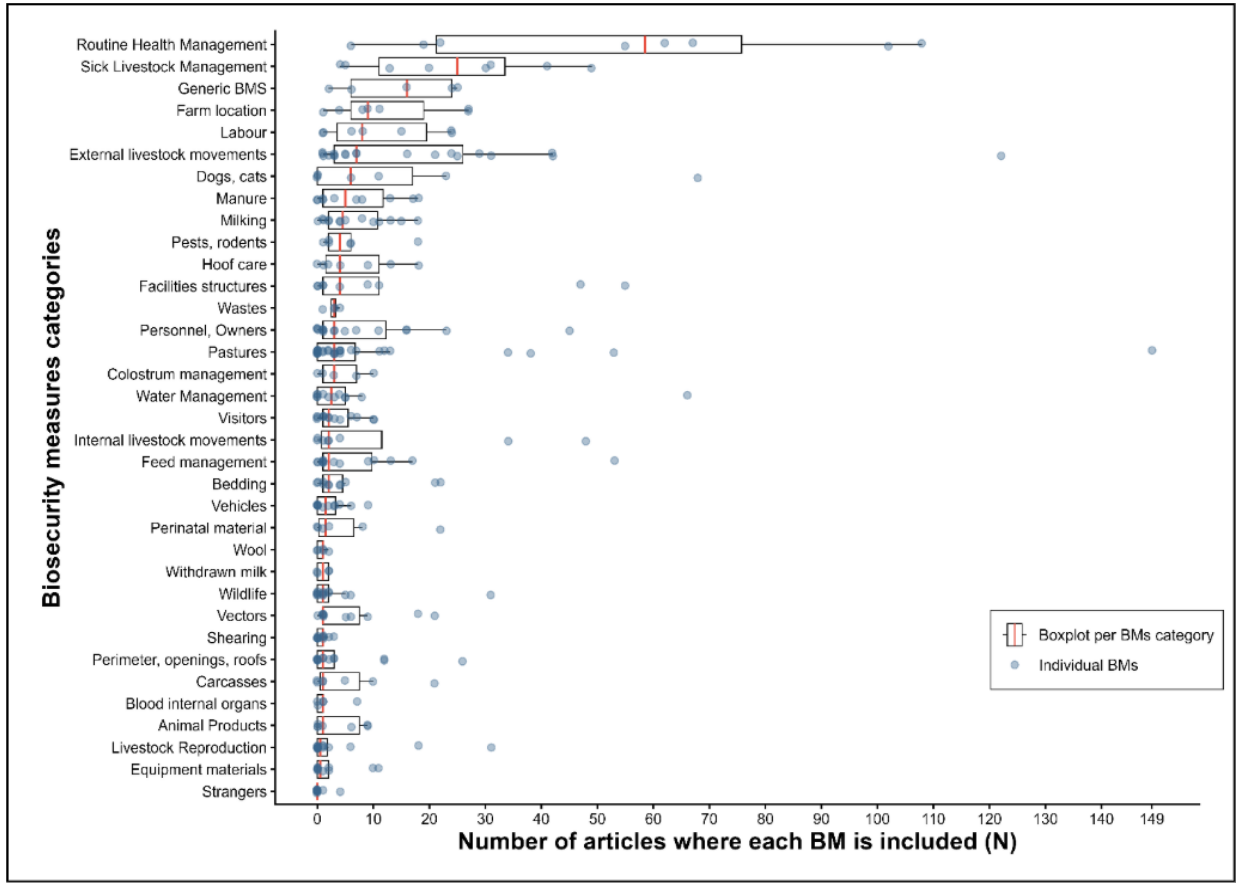
- Results of a review of **knowledge/research gaps on biosecuritv measures in small ruminants and future work on effectiveness** (EFSA + EUP AH&W European Partnership on Animal Health and Welfare)

- Results of a qualitative study to study **factors shaping the uptake of biosecurity measures** among **sheep and goat farmers (COM-B)** (Phase I)

- Update regarding an **ongoing quantitative cross-national farmer's survey** (Phase II)

REVIEW OF KNOWLEDGE AND BIOSECURITY RESEARCH GAPS (EUPAHW)

- Biosecurity studies do **not assess farms wholistically,** single or groups of biosecurity measures are studied instead
- Grouping measures into broad categories can mask gaps. Broad references to hygiene or biosecurity often **lack detail**
- Many studies reported whether biosecurity measures were present at a point in time, with **no follow up**



Need for assessment of effectiveness of BMs (future/ongoing work)

EUP AH&W European Partnership on Animal Health and Welfare

REVIEW OF LITERATURE ON BEHAVIOUR ON BIOSECURITY

- 44 papers reviewed, Evidence is concentrated in the UK and Australia (29 of 44 papers).
- Farmers recognise the importance of biosecurity and feel confident managing animal health (Boyd-Weetman et al., 2024; Crawford et al., 2024)
- Main barriers: cost, time and practicality (Best et al., 2021; Shortall et al., 2026)
- Perceived effectiveness rests on personal experience (Best et al., 2021)
- Vets are trusted but often called in only during outbreaks (Kaler & Green, 2013)



External Scientific Report

APPROVED: 23 September 2026
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Biosecurity in Sheep and Goat Farming: A Rapid Review of Farmers' Attitudes, Barriers and Drivers in the Global North

Orla Shortall[1], Joana S. Lourenço[2], Sotiria Eleni Antoniou[2]

[1]James Hutton Institute

[2]European Food Safety Authority (EFSA)

Shortall, Lourenço & Antoniou (2026)

Small ruminants are an under-studied group, and the evidence on biosecurity behaviour comes mostly from a few countries > EFSA's study to address gap

PHASE I: COM-B (CAPABILITY-OPPORTUNITY-MOTIVATION-BEHAVIOUR)

What shapes uptake of biosecurity measures, from the perspective of farmers and vets?

Country coverage: Ireland, Spain and Romania

SAMPLE & METHODOLOGY

Sample description

Farmers keeping sheep, goats or both, with a similar species mix per country.

Veterinarians working with sheep and/or goat farms.

Sample size & Data collection method

6 focus groups with 44 farmers (2 groups per country).

15 interviews w/ veterinarians (5 per country).

Fieldwork Dec 2024 to Jan 2025, run by Ipsos for EFSA.

Sample mix

Farmers: Purposive sampling captured varied farms, farming systems and demographics.

Veterinarians: at least 5 years of experience; biosec and infectious-disease experience; varied demographics.

Lourenço, Shortall, Antoniou, Cattaneo & Aznar (in preparation)

A SHARED RISK PATHWAY, DIFFERENT SENSE OF PROTECTION

Farmers and vets disagreed on how protected farms are but agreed on the main route of disease introduction.

- Farmers often saw geographic and social isolation as protection; private-sector vets considered farms inadequately protected.
- Both groups named uncontrolled or poorly managed animal movement as the leading risk.

> “
>
> We are isolated from each other. We have electric fences at the pasture, the access road is terrible, so you can’t come in easily. A forest also separates us from the other pasture. . It's harder to get there with other herds. No strangers are coming. We are safe
>
> **Female sheep farmer, Romania**

> “
>
> My farm is sufficiently isolated, and I think that right now I have a good control of all those diseases that can be transmitted, either by truck or externally.
>
> **Male goat farmer, Spain**

AWARENESS IS NOT THE MAIN GAP

Prevention depends on decisions taken on each farm, and recognising biosecurity importance does not always lead to applying it.

- Specific **know-how gaps** concerned correct implementation. E.g. quarantine attempted without a clear protocol, with animals "eyeballed" for signs of disease.
- Decisions depended on the moment: the ram-breeding season, case-volume urgency, disease alerts and outbreaks nearby.
- Result: measures were often applied inconsistently, not by fixed rules.

> “
>
> How many days should the quarantine last? One year? Three, eight months? I don’t have the answer.
>
> **Male sheep farmer, Spain**

> “
>
> Due to my lack of experience and young age I am not familiar with deworming or administering drugs intramuscularly or as it is needed.
>
> **Male goat farmer, Romania**

BIOSECURITY ADAPTED TO THE FARM

Vets and farmers work with what is feasible on each farm, rather than applying a single fixed standard.

- Vets reported closer collaboration with larger, commercially oriented farms
- They saw farmers' reluctance on some measures as coming from competing priorities, such as tradition and social practice
- Quarantine space, terrain and land tenure created concrete difficulties.

Trust in veterinary advice did not consistently translate into action.

- Vet contact is often reactive and linked to a crisis, which leaves little room to discuss prevention

> “
>
> I follow the vet’s advice as much as I can. Obviously, your vet has to give you a lot of advice, even if you can’t carry it all out.
>
> **Male goat farmer, Spain**

> “
>
> They don’t have the space [to quarantine]. Animals may be separate but are still touching noses. Farmers don’t have the buildings to be able to isolate.
>
> **Public authority veterinarian**

> “
>
> There are many old farms that weren't designed with biosecurity in mind. To comply, they would have to demolish and rebuild, which is impossible for most of them.
>
> **Private-sector vet, Romania**

DECISIONS CHANGE WITH CIRCUMSTANCES

Farmers weighed cost, practicality and perceived urgency.

- Time, labour, finance and infrastructure constrained implementation.
- Breeding needs or welfare concerns could override quarantine.
- Outbreaks and alerts could prompt measures otherwise deferred.

> “
>
> It mainly depends on the economic cost and on whether it is practical or not, the complexity of its application. We always start with the simple ones and avoid the more complicated ones.
>
> **Male goat farmer, Spain**

> “
>
> Sheep don’t like to be on their own. They can get stressed.
>
> **Male sheep farmer, Ireland**

CONCLUSIONS

To close the gap between recognising and applying biosecurity:

- Clarify action: where uptake is low, ask first whether it is a “know-how" gap (e.g. practical protocols, demonstrations, decision rules)
- Enable action: address farm-specific space, labour, and cost barriers
- Communicate risk: start from the shared concern about animal movement, discuss perceived protection, and clarify where existing protection may fall short

PHASE II (ONGOING): A CROSS-NATIONAL FARMER SURVEY

Examine patterns and priorities at scale

Farmer survey in **Greece, Ireland, Romania & Spain**.

Target: 1,500 farmers

Examine uptake alongside know-how, risk perception, barriers, motivations, responses to outbreak alerts, norms and information sources.

Compare perceived effectiveness and practicality of biosecurity measures.

JAN 2027

PILOT

FEB–MAR 2027

FIELDWORK / MAIN DATA COLLECTION

JUN 2027

PRELIMINARY RESULTS

Thank you!

Questions?



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