

research program on Livestock

More meat, milk and eggs by and for the poor

Enzootic abortion

What is Ovine Enzootic abortion?

Ovine enzootic abortion (OEA), also known as Chlamydial abortion, is caused by the bacteria *Chlamydophila abortus*. It is the most common cause of fetal problems and reproductive failure insheep and has significant economic impact worldwide.

Which animals are affected?

While mainly affecting sheep and goats, the pathogen can infect most other species.

Can people be infected?

Yes, in people Chlamydia can cause severe illness, stillbirths or abortion in pregnant women exposed to infected goats or sheep during abortion.

How can I recognize Ovine enzootic abortion in my herd?

- In the majority of cases, abortion occurs in the last 2-3 weeks of pregnancy.
- Affected ewes are not sick, but may have a red/brown vulvar discharge staining the wool around the tail/perineum, and have a drawn-up abdomen.
- Stillbirth, premature (2-3 weeks early) weak or low birth weight lambs/kid are common.
- In male animals it causes orchitis, epididymitis and decreased fertility or infertility in flock.
- Can lead to abortion storms.

How is the disease transmitted between animals?

- Massive environmental contamination occurs at abortion or parturition, when infected females shed vast numbers of infective bacteria.
- The bacteria is spread through boots, clothing, vehicles and wild birds.
- Sheep and goat pick up the organism by mouth or inhalation when they graze in areas contaminated with infected afterbirth or infected uterine fluid of an aborted dam.
- Sheep and goat also pick up the organism through feed, water, or dust particles.



Risk: grazing on contaminated pastures



Risk: feeding on contaminated feed



Risk: eating of contaminated food



Risk: assisting during delivery

How is Chlamydia transmitted to humans?

Transmission of the organism from animals to humans generally happens through:

- Consumption of contaminated food.
- Inhalation of contaminated dust.
- Splash from infected animal tissues or while assisting delivery.
- Direct contact with mucous membranes. e.g. touching your eye with contaminated hands.

How can I prevent the disease?

- Take care when introducing a new animal into your farm.
- Immediately identify and isolate aborted animals for 2 weeks.



- Carefully dispose of all dead fetuses, placental membranes, and wet bedding; clean and disinfect the area.
- Never feed dogs and cats dead fetus or placental membrane – they could disseminate the disease.
- If abortion storms occurs, treat all pregnant goats in the herd with longacting oxytetracycline
- Vaccination is possible, but vaccines not widely available in Ethiopia

What can you do to protect yourself and your family from zoonotic risk?

- Pregnant women and immunocompromised individuals are advised not to work with sheep and goat, particularly during the lambing/kidding period.
- Avoid all contact with possible sources of infection, including work clothing.
- Follow basic hygiene procedures, including thorough washing of hands and the use of disposable gloves, are essential when handling potentially infected materials.

Contacts

Gezahegn Alemayehu, ILRI, gezahegn.alemayehu@cgiar.org with contributions from Biruk Alemu, Hiwot Desta, and Barbara Wieland

Acknowledgements

This is a product of the CGIAR Research Programs on Livestock and Fish (2012-2016) and LIVESTOCK (2017-2022) as well as the International Fund for Agricultural Development (IFAD)-funded SmaRT Ethiopia Project—Improving the Performance of Pro-Poor Sheep and Goat Value Chains for Enhanced Livelihoods, Food and Nutrition Security in Ethiopia.

We thank all donors and organizations who globally support our work through their contributions to the <u>CGIAR Trust Fund</u>. Organizations contributing to this work are the International Center for Agricultural Research in the Dry Areas (ICARDA), the International Livestock Research Institute (ILRI) and partners of the national agricultural research system.