Animal & Plant Health Agency

Salmonella information for sheep buyers

Since 2017 APHA has investigated 2 serious incidents of a strain of *Salmonella* Typhimurium in sheep, associated with a human disease outbreak.

Some cases of human illness have been associated with either the handling or consumption of lamb and mutton.

If your business involves the regular buying and selling of sheep - particularly cull ewes - you are at increased risk of introducing *Salmonella* onto your farm, spreading that infection to other premises and possibly into the human food chain.

This Information Note aims to help you:

- Reduce the risk of introduction of *Salmonella* onto your holding, and its onward spread further down the food chain.
- Where Salmonella infection has been introduced, reduce the risk of clinical disease.
- Manage the risk to the food chain where disease occurs.

What you need to know

- Most groups of sheep have the potential to carry some sort of *Salmonella.* Some may be harmless but others are capable of causing serious disease in animals and humans.
- If you bring new animals into your farm they represent an infection risk – so try to keep them separate from existing flocks for at least 4 weeks.
- If you have a high throughput of sheep on your farm, try to operate flocks as separate stable groups – without 'topping up' groups with new animals.
- Maintain good standards of biosecurity at all times and ensure you are using an effective approved disinfectant at the correct concentration.
- If you have sick sheep, especially with severe diarrhoea, deaths or abortions – consult your vet and see detailed advice: http://apha.defra.gov.uk/documents/surveillance/diseases/info-note-sal-farmers.pdf
- If Salmonella is found, don't send sheep for slaughter until 8 weeks after the last sick animal has recovered, and declare it on a Food Chain Information declaration.

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Salmonella-affected sheep can be **dull** with **diarrhoea**, and flocks may show **high mortality rates**. However, not all infected flocks and animals display clinical signs. Healthy sheep may still carry and shed *Salmonella*.

Cattle, poultry, horses, dogs and wildlife have also tested positive for this strain of *Salmonella*. They may also show no clinical signs, or have diarrhoea.

Farmers, hauliers, their staff and family members may become infected through direct contact with infected animals.

Salmonella can be introduced into your farm by:

- Movement of animals - which may or may not be apparently healthy
- Equipment and machinery e.g. handling/dosing or shearing equipment
- Vehicles – especially contaminated wheel arches and foot-wells
- Contaminated clothing, footwear, feed or mixer wagons
- Contaminated surface water
- Wild birds, dogs and pests such as rodents

Depending on the weather, *Salmonella* can potentially survive for months in the farm environment, both inside sheds and on grassland.

Farm businesses moving large numbers of stock (e.g. cull ewes) in and out of the same group from multiple sources are at high risk from *Salmonella* and other diseases.

Short turnover periods and high stocking densities can worsen this, enabling build-up of environmental contamination. This can cause high levels of exposure and an increased risk of clinical disease to newly arrived animals. Departing animals are more likely to carry contamination with them to slaughter or to other farms.

Organise your farm management to minimise risk and spread of infection by:

1. Minimising stress to sheep

- Stressed animals carrying *Salmonella* are likely to shed larger numbers of bacteria into the environment and become clinically ill.
- Try to combine management procedures to reduce handling and mixing groups of sheep where possible.
- Ensure that stocking densities are not too high (particularly during periods of climatic stress, e.g. drought) and each sheep has easy access to clean water and trough space. Be aware of the stress caused by adverse or changing weather conditions.

- Consult your vet regarding other potential causes of stress – worm or fluke infections, trace element deficiencies, and conditions that suppress the immune system such as such as Border Disease.

2. **Being vigilant to spot any signs of disease among your animals.**

- Consult your vet for advice as soon as possible if you see the clinical signs above, providing appropriate care for the sick animals and keeping this group separate from other stock.
- Avoid sending any animals from the affected group (whether healthy or otherwise) to market, slaughter or other farms to minimise both the risk of spreading disease and of putting the food chain at risk.
- Even apparently healthy animals from affected groups are at risk of excreting high numbers of Salmonella organisms, and of having fleeces contaminated with Salmonella. The stress of movement may make such animals clinically ill.
- Always submit the Food Chain Information (FCI) declaration when delivering animals to a slaughterhouse and provide information about any animals showing signs of any conditions that may affect the safety of meat.
- APHA currently advise that if the affected group is kept as a stable group, the risk levels should have reduced to background levels by around 8 weeks after the last clinically ill animal had recovered. The FCI for animals from an affected group that are moved should state presence or suspicion of Salmonella during this period but not after.

3. **Keeping stable groups of animals separate from each other.**

- Maintain physical separation of groups to avoid physical contact.
- Manage buildings and individual fields on an all-in, all out basis as far as possible, with effective Cleaning and Disinfection (C&D) of housing and equipment between batches.
- Create a buffer zone with biosecurity precautions between existing and new animals until the existing ones are cleared.

4. **Maintaining high biosecurity <u>within</u> your farm.**
   - General advice on biosecurity can be found at: https://www.gov.uk/guidance/disease-prevention-for-livestock-farmers
   - Any shared contact with other farms, be it machinery, handling equipment, rams or bulls, staff or resources, is a potential risk factor for transmitting *Salmonella*.
   - If possible, check the health status of livestock before buying or selling animals and buy direct from farms.
   - Always clean dirty equipment/vehicles first to remove visible contamination before disinfection.

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- Use Defra approved disinfectants at the General Orders dilution rate. These include Chlorocresol-based disinfectants which are fast-acting for use in multiple situations where disinfection against *Salmonella* and other pathogens is required.

Disinfectant	Dilution rate
Bi-OO-Cyst	1:50
Cyclex	1:24
Interkokask	1:50
KC5000	1:50
Kilcox	1:50
VirkonLSP	1:40

- Introduce and maintain a pest control programme and keep your farmyard and surroundings clean and tidy to discourage vermin.
- Restrict access of pests to stored feed, restricting potential perching or nesting places, and appropriate deterrent and control strategies.
- Minimise access by wild birds by a combination of methods – e.g. kites, scarecrows, bird alarm call screamers or falconry.

- **Control of infectious disease such as *Salmonella* in farm animals requires careful implementation of tailored biosecurity and farm hygiene measures to the highest priority needs of your farm.**
- **The precautions detailed above should help reduce the risk of bringing in and maintaining a range of diseases, so should be beneficial for the general health and productivity of your livestock.**
- **Frequent movements of sheep onto and off farmed premises can significantly increase the risk of acquiring and spreading *Salmonella* infection. It is important to maintain stable groups and avoid mixing wherever possible.**
- **Don't send any animals from affected groups to slaughter, to market, or to other farms until at least 8 weeks after all animals have recovered.**
- **Take steps to both protect your business and the health of both humans and animals. This includes completing FCI declarations accurately.**
- **Good personal hygiene is important in preventing *Salmonella* and other zoonotic diseases, especially in young, elderly or immunocompromised individuals more vulnerable to infection.**