



Animal &
Plant Health
Agency

New Strain of *Salmonella*

Information note for farmers

January 2019

Background

APHA has recently investigated incidents of a potential new strain of *Salmonella* Typhimurium in sheep. This strain of *Salmonella* is associated with an on-going human outbreak. In batches of affected ewes the animals were **dull** with **diarrhoea**, and affected flocks had **high mortality rates**. However, not all infected animals on these two affected premises displayed clinical signs. Other species of animals have also tested positive for this strain of *Salmonella*. Animals (and flocks) without any clinical signs may still be carrying and shedding this *Salmonella*. *Salmonella* can also infect other livestock, such as pigs, poultry, horses, cattle, as well as farm dogs and wildlife. They may show no clinical signs at all, or may have diarrhoea.

Human illness in this outbreak has mostly been associated with the handling of and consumption of lamb and mutton. It is also possible that farm staff or family members may become infected through direct contact with infected animals, and an individual haulier has become ill via this route.

Salmonella can be introduced into your farm by:

- Movement of animals, which may or may not be showing any clinical signs of infection
- Equipment and machinery e.g. handling/dosing equipment
- Vehicles – especially contaminated wheels and footwells
- Contaminated clothing and footwear
- Contaminated feed
- Wild birds and pests

Depending on the weather, *Salmonella* can potentially survive for months in the environment.

Biosecurity advice

Biosecurity is very important to help stop the spread of *Salmonella*

You need to maintain high biosecurity within your farm. Any shared contact with other farms, be it shared machinery, staff or resources, is a potential risk factor for transmitting *Salmonella*:

- Try to reduce stress on farm – stress is thought to be linked to times when carrier animals (infected animals showing no clinical signs) are most at risk of shedding large numbers of the bacteria and possibly becoming clinically affected.
- When possible, avoid mixing groups. Allow the animals time to get used to a new environment and the staff in a new premises.
- Make sure that stocking densities are not too high and every animal has easy access to water and feed trough space.
- Immunosuppressive conditions such as Border Disease or other concurrent infections such as worms and fluke, or trace element deficiencies, can result in a similar effect to stress; increasing the shedding of the *Salmonella* and simultaneously increasing susceptibility to infection of other animals in the flock.
- Try to maintain a closed flock as it prevents new, infected animals being introduced as well as the introduction of other diseases which could encourage shedding of *Salmonella* within your animals.
- Check the health status of livestock before buying or selling animals. New animals should be kept separate from existing livestock on arrival at a new premises.
- It is important that dirty equipment/vehicles are cleaned first to remove any visible contamination before disinfection so that the disinfectant can work effectively. Use Defra approved disinfectants at the correct concentration. Chlorocresol-based disinfectants are effective against *Salmonella* including:
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Disinfectant	Dilution rate
Bi-OO-Cyst	1:50
Cyclex	1:24
Interkokask	1:50
KC5000	1:50
Kilcox	1:50
VirkonLSP	1:40

- Always clean & disinfect (C&D) your vehicle after delivering animals to another farm, abattoir or market etc. Pay particular attention to wheels and wheel arches as well as the load area.
- Try to avoid sharing equipment e.g. mobile handling facilities, or if necessary ensure that they have been properly C&D between premises.

- Wear dedicated personal protective equipment (PPE) such as a clean boiler suit and wellies when visiting livestock markets, slaughterhouse's lairage or other farms. Clean contamination from clothes and C&D your boots before leaving animal areas.
- Wear PPE and regularly wash hands when working on farm. If PPE does not totally prevent contamination of underclothing also use dedicated clothing when on farm and change clothes before returning to any dwelling or other holding. This will help reduce the risk of exposing vulnerable people to the *Salmonella*.
- Always submit the FCI when delivering animals to a slaughterhouse or market and provide information about any animals showing signs of any conditions that may affect the safety of meat.
- Avoid selling, buying or transporting sick animals. Clinically affected animals will be shedding a lot more bacteria into the environment and so are more likely to spread the infection.
- Where possible, limit and control farm visitors – people and vehicles. Have pressure washers, brushes, hoses, footbaths, spare wellington boots and boiler suits, water and disinfectant available, and make sure visitors use them when visiting your farm.
- Try to avoid livestock having direct contact with neighbouring livestock. If it is possible, fence off streams and rivers and supply clean fresh drinking water in troughs.
- Dispose of fallen stock (dead animals) promptly and properly.
- Introduce a pest control programme and keep your farmyard and surroundings clean and tidy to discourage vermin.

Be vigilant to spot any signs of disease among your animals. If you have seen the clinical signs above then please discuss with your private veterinarian as soon as possible.

To conclude:

Disease outbreaks among farm animals can cause significant economic damage. Always remember the possibility of introducing infection on to your farm via fomites (such as clothes, vehicles etc.). Avoid wearing dirty clothes and footwear off the farm – this is important when visiting markets, shows, farms and other premises where there are livestock. The importance of good person hygiene is made all the more vital with zoonotic pathogens such *Salmonella*, especially for those with friends or relatives that are more vulnerable to infection (young, elderly and immunocompromised individuals).



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Further information on sheep disease surveillance is available:
<http://apha.defra.gov.uk/vet-gateway/surveillance/seg/small-ruminant.htm>

Any enquiries regarding this publication should be sent to us at: SIU@apha.gov.uk

www.gov.uk/apha

The Animal and Plant Health Agency (APHA) is an executive agency of the Department for Environment, Food & Rural Affairs, and also works on behalf of the Scottish Government and Welsh Government.