



FACT SHEET

UPDATED JUNE 2019

SALMONELLA HINDMARSH

There are different types of salmonella. *Salmonella hindmarsh* is the most common, causing death in ewes. It differs from *Salmonella brandenburg*, which causes abortions and deaths in late pregnancy.

CLINICAL SIGNS

Generally *S.hindmarsh* can affect adult ewes in good condition but is rare in lambs or hoggets. It most commonly occurs during December to June. Some ewes die before they develop clinical signs and the first sign that you have a problem may be the discovery of dead ewes. Some of the dead ewes will have evidence of a khaki coloured scour. Other signs to look for include:

- Depressed, lethargic sheep, reluctant to move
- Not eating
- Mild to severe diarrhoea

Affected ewes may die within 24–48hrs.

DIAGNOSIS

A diagnosis is based on clinical signs and history, with confirmation made by veterinary autopsy. Where baleage is being fed, it is very important to get a laboratory diagnosis (bacteriology) as enteric Listeriosis can look identical on post mortem. When investigating strains of Salmonella, it is nearly always *S. hindmarsh*, rarely *S. bovis-morbificans* or *S. typhimurium*. NB. *S. brandenburg* occurs in late pregnancy, causing deaths and abortions.

TREATMENT

Rapid antibiotic treatment can save some affected ewes. If you are able, administer treatment within 24 hours. The use of long acting tetracyclines is advised (Penicillin is ineffective). Seek veterinary advice.

CONTROL

If you have suspected cases seek veterinary advice. If possible isolate sick ewes and shift the remainder to a fresh paddock. Vaccinating early in an outbreak can reduce the number of deaths, even if they haven't been vaccinated previously. It can take up to 10 days for deaths to stop and a second shot may be advisable in severe outbreaks. As deaths can often trickle on for some time, it pays to act quickly and give the first vaccination, rather than 'wait and see'. Spreading the ewes out will also help reduce the infection transmission, but when feed is tight it may be impractical or difficult to achieve.



PREVENTION

The best form of prevention is vaccination to prevent infections, lessen the impact of an outbreak and reduce stock loss. If a farmer is experiencing repeated outbreaks every year, set up an annual vaccination programme with two shots of Salvexin+B a month apart prior to the problem period and then an annual booster. Veterinary advice should be sought in these circumstances.

Salvexin+B is very effective against *S. hindmarsh*, however it has a lesser effect against *S. brandenburg*.

SOURCES/TRIGGERS OF SALMONELLA

Similar to many other diseases, salmonella bacteria are common throughout New Zealand. Many sheep flocks may have animals that are 'carriers' of salmonella—these sheep may not show clinical signs. Stressful events may trigger the carriers to become shedders. These events may include the following farming practices:

- Feed changes and underfeeding
- Bad weather
- Increased stocking density
- Transport
- Mustering
- Yarding and shearing

Other sheep may develop the infection, become sick, and themselves become massive spreaders of salmonella. This is especially true of 'naive' sheep—those that have never previously been exposed to salmonella and/or have not been vaccinated. A popular misconception is that ducks are the cause of the outbreaks.

HUMAN HEALTH

Humans can be easily infected with Salmonella from contact with contaminated animals. Good hygiene needs to be practiced when dealing with diseased animals. There is a strong association between farm outbreaks and human infections. Children are the most commonly affected. The illness symptoms may be diarrhoea, dehydration and stomach cramps. This disease should not be underestimated; medical attention should be sought for any suspected cases.

GOOD HYGIENE PRACTICE

1. Use disposable gloves when handling any sick ewes or carcasses (or when handling aborted material or lambing any suspect ewe)
2. Avoid putting fingers anywhere near your mouth. Be careful with dog whistles or smoking etc
3. Wash hands with disinfectant prior to every meal
4. Do not bring contaminated clothing/footwear indoors
5. Clean and disinfect your boots
6. Take care not to expose young children to potentially contaminated material

FURTHER INFORMATION

Your local Veterinarian

www.nzva.org.nz/find-a-vet

New Zealand Institute of Primary Industry Management for list of farm consultants

www.nzipim.co.nz

Beef + Lamb New Zealand

0800 233 353, www.beeflambnz.com

Ministry for Primary Industries

0800 00 83 33, www.mpi.govt.nz

ACKNOWLEDGEMENTS & MORE INFORMATION

B+LNZ would like to thank and acknowledge the New Zealand Veterinary Association for its assistance with this factsheet.



For further information freephone Beef + Lamb New Zealand on 0800 BEEFLAMB (0800 233 352) or email enquiries@beeflambnz.com or visit www.beeflambnz.com

Factsheets are made possible by sheep and beef farmer investment in the industry. Beef + Lamb New Zealand is not liable for any damage suffered as a result of reliance on the information contained in this document. Any reproduction is welcome provided you acknowledge Beef + Lamb New Zealand as the source.