



FACT SHEET

APRIL 2014

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 ewes in good condition of all ages. It most commonly occurs during December to June. The first sign that you may have a problem will be the discovery of dead ewes. Upon finding, look carefully as some of the dead ewes will have evidence of a khaki coloured scour. Be vigilant, some ewes die before they develop clinical signs. Signs to look for:

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

Infected ewes may die within 24 - 48hrs. In the 2013 Southland outbreak there were reports of the condition occurring in hoggets as well. This is a relatively rare situation.

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 on faecal samples). This is vital as enteric Listeriosis can look identical on post mortem and it is virtually indistinguishable from *S.hindmarsh* on an autopsy alone. When investigating strains of Salmonella, it is nearly always *S.hindmarsh*, rarely *S.typhimurium*. NB. *S.brandenburg* occurs in late pregnancy, causing deaths and abortions.

TREATMENT

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

CONTROL

If you are undertaking a vaccination programme to control *S.hindmarsh* seek veterinary advice. One dose of Salvexin+B at the start of an outbreak is very effective. It can take up to 10 days to prevent deaths. 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 would possibly help reduce the infection transmission, but when feed is tight it may be impractical or difficult to achieve.



PREVENTION

The purpose of a vaccination programme is 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 - 2 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 found throughout New Zealand. The bacteria are commonly found across 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

Other sheep may develop the infection, become sick, and themselves become massive spreaders of salmonella. This is especially true of 'naïve' 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

Good hygiene needs to be practiced when dealing with diseased animals. Humans can be easily infected with Salmonella from contact with contaminated 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; any suspected cases should seek medical attention.

GOOD HYGIENE PRACTICE

1. Use disposable gloves when handling any 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 in 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

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

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