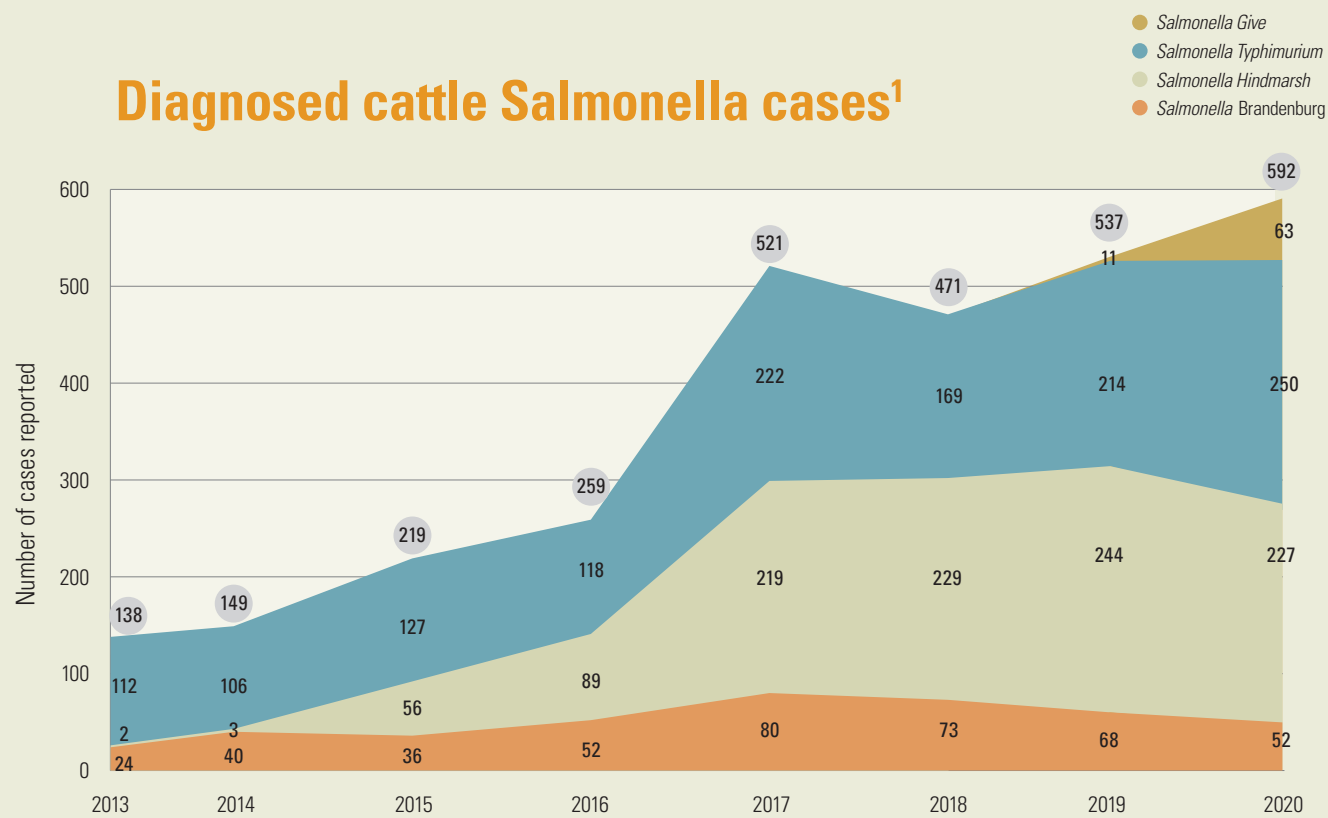


SALMONELLA

3x
more prevalent
than in 2013¹

The prevalence of Salmonella in both cattle and sheep is increasing¹

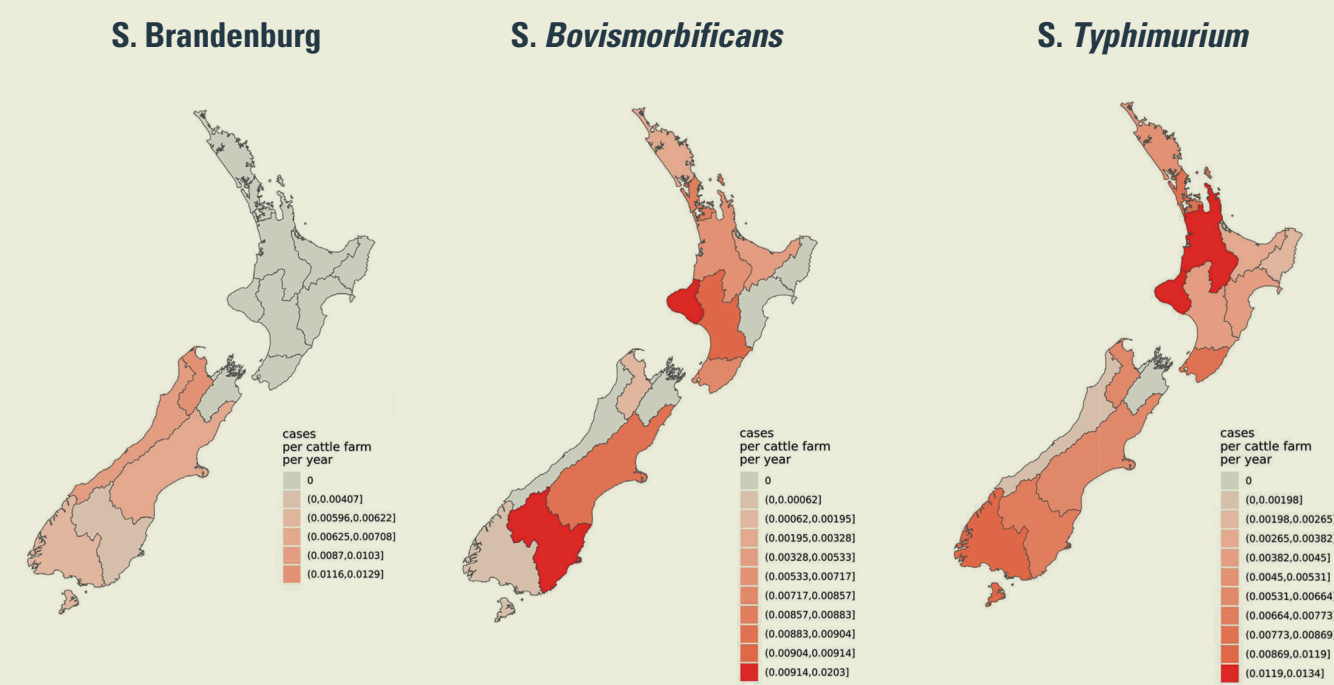
Diagnosed cattle Salmonella cases¹



1. Surveillance, Vol's 47-48, No 3, September 2012 – 2021

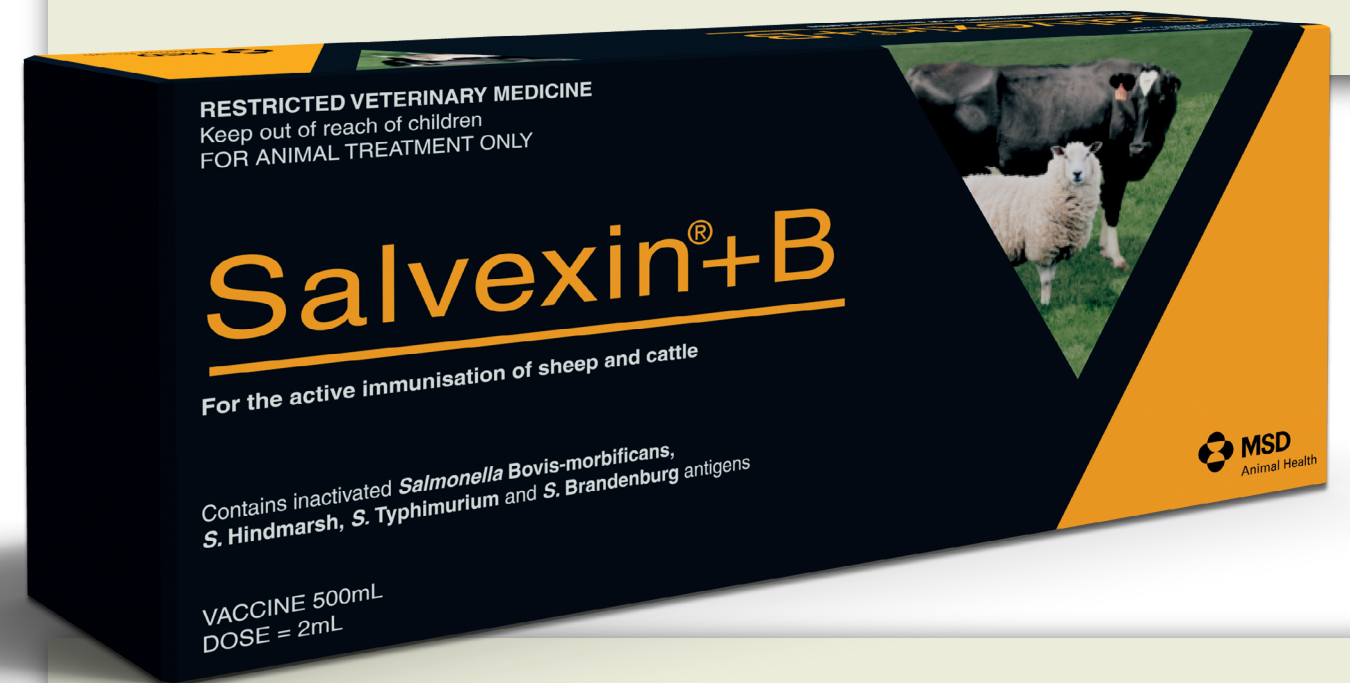
Salmonella is widespread throughout New Zealand

Incidence rates of laboratory submissions of different Salmonella serotypes in cattle (2019)²

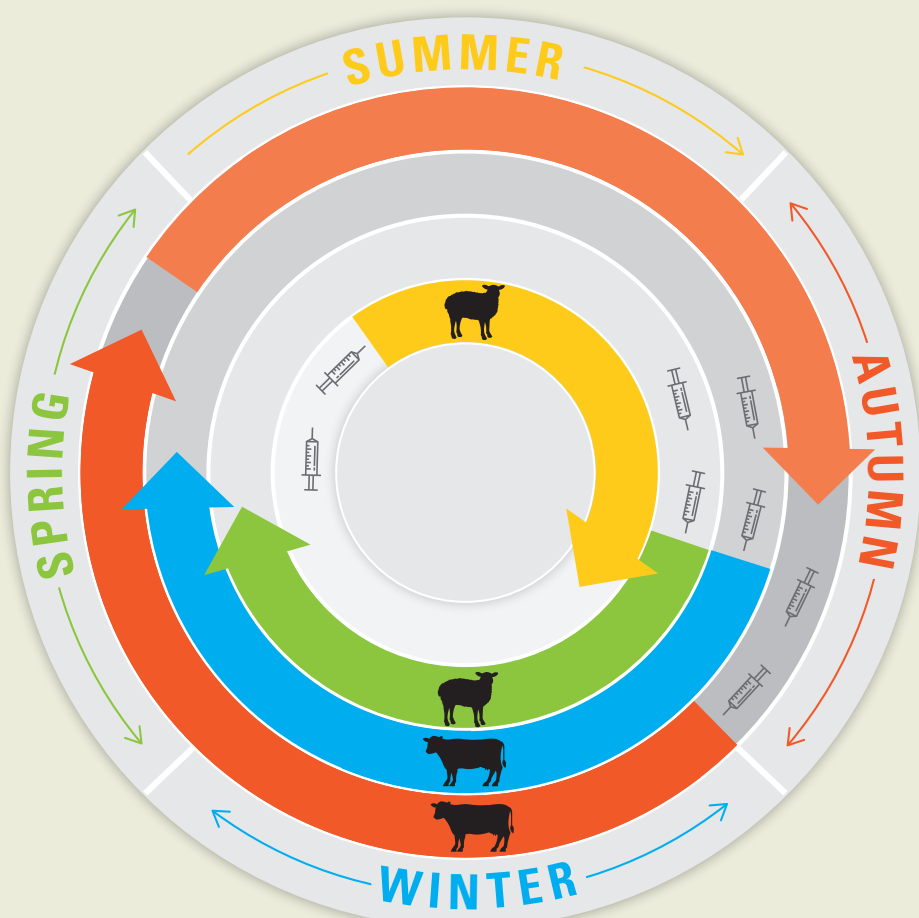


2. Credit: Surveillance & Incursion Investigation (Animal Health), Diagnostic & Surveillance Directorate, Biosecurity New Zealand

CONTROL THE RISK OF SALMONELLA



Salmonella is a risk year-round



- Sheep Enteric / Gut disease: Summer–Winter
- Sheep Abortions / Reproduction disease: Mid-late pregnancy
- Cattle Abortions / Reproduction disease: Mid-late pregnancy
- Cattle Enteric / Gut disease: All year, primary risk period Winter–Spring

Common Salmonella risk factors

Yarding or transport



Birds and scavengers

Stress from bad weather



Farms at risk of Salmonella should consider proactive, preventative vaccination

Further explanation of Salmonella talking points:

WHAT IS SALMONELLA?

- Salmonella is a bacteria and it's spread by healthy carrier animals which don't show signs of disease, but shed bacteria (usually intermittently or at low levels). These bacteria go on to infect other animals. Carrier animals can shed Salmonella for months or even years.
- Salmonella can survive in the environment for a long period of time (e.g. months to years in ideal conditions like wet paddocks, or dry, shaded areas such as cattle or sheep yards).
- There are many different serotypes of Salmonella in New Zealand, with the most prevalent being:

Cattle

- Brandenburg (primarily causes abortions)
- *Typhimurium* (primarily affects the gut)
- *Bovismorbificans* (primarily affects the gut)

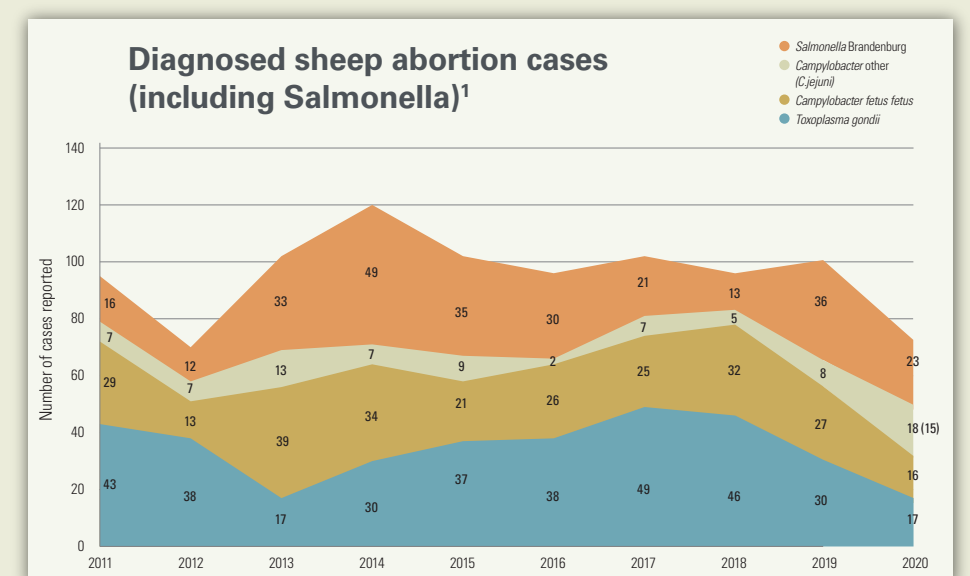
Sheep

- *Hindmarsh* (primarily affects the gut)
- Brandenburg (primarily causes abortions)

Irrespective of the serotypes, all types of Salmonella can cause outbreaks and deaths.

1. SALMONELLA IS 3 x MORE PREVALENT THAN IN 2013¹ AND THE PREVALENCE OF SALMONELLA IN BOTH CATTLE AND SHEEP IS INCREASING¹

- Surveillance data collected by the Ministry for Primary Industries shows that the total number of Salmonella cases are trending upward year after year. This due to an increase in total cases for some of the more established Salmonella serotypes such as *S. Typhimurium*, increased geographic spread into areas which previously didn't have cases of some Salmonella serotypes e.g. *S. Bovismorbificans* and new serotypes emerging e.g. *S. Give*.
- Laboratory-diagnosed cases represent a minority of clinical cases, but provides a useful insight into trends in overall cases over time.



2. SALMONELLA IS WIDESPREAD THROUGHOUT NEW ZEALAND²

- The Biosecurity New Zealand maps shown give an indication of how widespread three particular serotypes of Salmonella are regionally. Combined with an increasing prevalence, they show that the disease is a potential issue for every farm.

Salmonella Brandenburg has mostly been seen in the South Island, with the odd case popping up in the North Island every few years, however with the amount of stock movement across New Zealand, it is surprising that it hasn't already established and spread throughout the North Island as well.

3. SALMONELLA IS A RISK YEAR-ROUND

- The different serotypes of Salmonella effect New Zealand sheep and cattle differently both in their clinical symptoms and the time of the year when they present.
 - Sheep Enteric / Gut disease: Summer-Winter
 - Sheep Abortions / Reproduction disease: Mid-late pregnancy
 - Cattle Abortions / Reproduction disease: Mid-late pregnancy
 - Cattle Enteric / Gut disease: All year, primary risk period winter-spring

As a result the risk period for the common sheep and cattle serotypes in New Zealand combined means that Salmonella is a year-round risk in New Zealand.

4. COMMON SALMONELLA RISK FACTORS

The number of animals that become infected, ill or die from Salmonella depends on the risk factors on farm. Reducing these risks is the first step to helping prevent an outbreak.

Risk mitigating opportunities:

- Minimise time off feed when yarding/transporting
- Clean and disinfect yards between groups of animals
- Separate stress events e.g., transportation and vaccination
- Control pests and scavengers
- Double check magnesium supplementation forms/rates (cattle)
- If a disease outbreak occurs, consult your vet as soon as possible as different approaches are recommended depending on the situation.

Vaccinate at-risk animals prior to risk periods, stress events or diet changes.



¹ Surveillance. Vol's 47-48, No 3, September 2012 – 2021