

DEER FACTS

TUBERCULOSIS CONTROL

A HARD-FOUGHT BATTLE

KEY POINTS

- Bovine tuberculosis (TB) in cattle and deer is controlled in order to retain New Zealand's access to overseas markets and to maintain our reputation for safe, high-quality food.
- Deer and cattle are tested for TB on farms in areas of risk. All carcasses are examined for TB during meat inspection. OSPRI also controls possums that spread the disease.
- OSPRI is the agency that manages the TBfree control programme.
- Herds with infected animals are placed under strict movement control, are regularly tested, and any reactors are sent for slaughter.
- These measures have greatly reduced TB levels over the years. Today, there are only a few herds with infected animals.

A potential threat to exports

Controlling TB is essential for our multi-billion dollar export trade in beef, dairy and deer products.

Staying TB-free helps secure New Zealand's reputation as a producer of safe, high-quality produce and maintain access to international markets. It also means farmers don't have carcasses downgraded at slaughter.

The industry has broken the back of the disease – TB infections in deer herds have dropped from hundreds in the 1990s to only a handful today. But the disease is still a risk in areas where infected wildlife is present and when livestock are moved out of higher risk zones.

What is TB?

Bovine TB is a disease caused by the bacterium *Mycobacterium bovis*. It can infect a range of mammals including cattle, deer, pigs, possums, ferrets and humans.

TB is hard to cure and treating infected livestock isn't practical or economic. The most effective way to control it is by early detection and slaughter of infected animals.

In New Zealand, the risk of TB to people is very low. However, in some countries both human (*M. tuberculosis*) and bovine TB are still important public health issues.

What does TB look like?

Infected deer on farms are unlikely to show any obvious, clinical signs of TB. It is mainly picked during at on-farm TB testing or upon inspection at slaughter.

TB presents as abscesses – a golden yellow gritty substance – in lymph nodes. The abscesses are normally found in the neck and lungs, but can occur in other parts of an infected animal.

How is TB spread?

In areas where TB is present in wildlife, possums are the main wildlife source of bovine TB.

Other cases are caused by movement of cattle or deer carrying undetected TB infections between farms.

How is TB being controlled?

The TBfree programme has five strands:

- On-farm testing of cattle and deer
- The slaughter of TB-positive stock
- Livestock movement controls
- Possum population control
- Meatworks inspection

Photo: Phil Stewart



Venison finishers looking good and TB-free.



Photos:ASUREQuality

Top: A historic photo of TB lesions on the inside of the rib cage of a deer. This level of infection is unlikely to be seen today.
Lower: An incised lymph node from an infected deer showing the yellow gritty substance that indicates a TB infection.

Disease management

New Zealand is divided into Disease Control Areas (DCA). The frequency of TB testing and the movement control measures that apply in each DCA depend on the risk of TB being transferred from infected wildlife to livestock.

In higher risk areas, there is pre-movement and annual testing. In the lowest risk areas, there is no routine on-farm testing. The DCAs are updated annually. The current zone map is available on the OSPRI website.

Where testing is required, OSPRI lets farmers know when their next scheduled test is due.

If you farm in an annual or biennial test area and send most of your stock to slaughter each year, you can apply for closed herd status. This will reduce on-farm testing to up to once every three years. Conditions apply; more information is available on the OSPRI website.

Although the overall risk to livestock has reduced, all deer and cattle carcasses are still checked at processing plants for signs of TB during meat inspection.

Very occasionally, in herds that have had cases in the past, disease will be identified at testing or slaughter. If this occurs, the farm's status will revert to 'Infected'.

For more information about TB testing, visit the OSPRI website or call 0800 482 463.

Movement controls

Herds with an 'Infected' or 'Suspended' status require tests or official permits before any deer or cattle are moved to another property.

The areas where TB risk is high are classified as Movement Control Areas (MCAs). Farms in these areas also require tests or official permits before any deer or cattle are moved.

In some circumstances, an official exemption to move stock without a pre-movement test, such as direct to slaughter, may be granted. Call OSPRI on 0800 482 463 to apply.

TB testing in low-risk areas

Targeted testing is now being used in low-risk 'Surveillance Areas'.

Instead of routinely scheduling whole-herd testing, OSPRI looks at a range of risk factors on each farm, such as:

- Frequent animal movements on or off the farm
- Animal movements from higher-risk areas or herds (like those under movement control)
- Poor or incomplete NAIT records

This means some farms may need to present animals for TB testing more frequently, while others may not hear from OSPRI for long periods.



Injecting tuberculin to measure a deer's response to TB.



A typical 'lump' reaction to the mid-cervical skin test.



Orange reactor tags on deer that have reacted to the skin test.

What does TB testing involve?

TB testing uses the mid-cervical skin test (MCT) to check if an animal's immune system has previously been exposed to *M. bovis*. A small area on the neck is clipped, tuberculin is injected, and the site is checked for a reaction three days later.

Any swelling counts as a reaction. When reactions occur, follow-up blood tests are used to confirm whether bovine TB is present.

A reaction may be caused by *M. avium* (avian TB) or *M. paratuberculosis* (Johne's disease) – bacteria that are closely related to *M. bovis*. If either avian TB or Johne's is detected, no action is needed under the TBfree programme.

However, you may wish to seek veterinary advice if Johne's disease is detected. For more information, see the Johne's disease *Deer Facts* fact sheet.

All reactor animals that are not cleared by a blood test are sent to slaughter.

In rare cases, some animals may need to be sedated before testing, for safety reasons. As deer farmers are not legally permitted to use velvetting drugs for this purpose, the sedation must be carried out by a veterinarian.

Reactor tags

All deer or cattle that react to the skin test are ear-tagged with orange reactor tags. These tags must remain in place until the reactors are slaughtered or cleared on a re-test. If the animals are cleared, the tags must be removed before the animals are moved off the farm. You must not remove the tag yourself without written confirmation from OSPRI that you can do so.

What is OSPRI, and how is it funded?

TBfree New Zealand Ltd is a subsidiary of OSPRI, the agency tasked with controlling TB by the Biosecurity Act.

OSPRI is owned by DairyNZ, Beef + Lamb New Zealand and Deer Industry New Zealand. It is governed by a board made up of industry representatives and MPI.

The government contributes 40% of the funding for the TBfree programme. The remaining 60% comes from levies paid by dairy, beef and deer farmers.

OSPRI also manages the National Animal Identification and Tracing (NAIT) programme that traces the movements of cattle and deer.



Pest management

The possum battle is being won



Photo: Hannah Windley

Possums are a key TB vector – they can carry the disease, maintain it within their population, and spread it to cattle and deer.

The TBfree programme has made major progress in reducing this risk. Wildlife in large parts of the country is now TB-free, enabling on-farm TB testing to be reduced because of the lower risk of infection.

Wild deer pose a risk



Photo: BigStock

Wild deer can threaten your TBfree status.

Carefully manage any wild deer that enter or are captured on your property.

Wild deer pose biosecurity, personal safety, animal welfare, and food safety risks. They can also carry TB and other diseases.

If they mix with your herd, they can increase the risk of these diseases being introduced and spread. Your farm's TB status may be put at risk.

In addition, where cropping or pest control operations are occurring nearby, it may not always be clear whether wild animals have been exposed to agricultural compounds or toxins.

For these reasons, the default minimum withholding period of 91 days must be observed before sending wild deer to slaughter.

Keeping your pest numbers low

In areas where OSPRI believes wildlife are clear of TB, it stops its possum control work because the risk of TB re-emerging is very low. Once this happens, possum numbers inevitably bounce back, unless others step in.

Pest control is important for biosecurity and biodiversity on your farm. Animal pests can also spread a wide range of diseases – not just TB – to your stock and to the people who manage them.

See the *Deer Fact* sheet, 'Make your native bush sing' to find out how other deer farmers are controlling pests. Useful resources are also available from predatorfreenz.org and most regional and unitary councils.

Animal Status Declaration (ASDs)

You must complete an Animal Status Declaration (ASD) whenever you move animals to another property, a saleyard, or a meat processor. You can complete a paper ASD or do it electronically.



ASDs underpin our reputation for safe, high-quality food. They provide important information about your animals – including their health history, treatments, farming practices, and TB testing or infection status.

This information goes to anyone buying your deer (the new Person in Charge of Animals (PICA)), and it also supports government export inspections and certification.

You must keep for 1 year a copy of the ASDs for animals you have sold. If you have received animals onto your property, you must keep a copy of their ASDs for the period they are in your care and for 1 year after that.

More >>

OSPRI

- The NAIT programme
- The TBfree programme

Deer Industry NZ

Deer Facts: www.deernz.org/deer-facts

- Johnes disease
- Make your native bush sing
- Transport of deer in New Zealand



**Deer Industry
New Zealand**

PO Box 10702, Wellington 6143 | Level 4, Wellington Chambers,
154 Featherston Street, Wellington 6011, New Zealand
Telephone: +64 4 473 4500 | Email: info@deernz.org

Deer Facts are produced by Deer Industry New Zealand (DINZ), supported by the Ministry for Primary Industries, to assist farmers to run profitable farm management systems that are recognised for their high standards of animal welfare and environmental performance.

Each *Deer Fact* sheet has been checked for technical accuracy, but DINZ cannot take responsibility for decisions based on their content. If in doubt, seek professional advice.