



JUNE 2013



# DRYSTOCK BIOSECURITY GUIDELINES SEVEN INTERVENTION POINTS FOR ON-FARM BIOSECURITY



Fact Sheet 67





# **Drystock Biosecurity Guidelines—Seven Intervention Points for On-farm Biosecurity**

## **Don't**

- **bring infection onto your farm**
- **spread infection around your farm**
- **transfer infection from your farm to others**

## What is biosecurity?

Biosecurity can be defined as a set of measures designed to prevent the entry, establishment and spread of pests and diseases into a country, area or property. At the farm level, this mainly involves preventing pest and disease introduction onto the premises, for example, in replacement animals or carried in by visitors, and limiting the onward spread of any pest or disease following introduction.

## Why is on-farm biosecurity so important?

### Established diseases

By practising better biosecurity on-farm, farmers can reduce or eliminate the impacts of pests and diseases that are established in New Zealand, whether they have already reached the property or not.

Impacts of disease can include:

- reduction in on-farm productivity
- reduction in the quality and value of animal products
- lower market value of breeding animals
- the cost of control—often it costs more money and time to control disease than to prevent it
- negative effects on animal welfare
- disease in humans.

For these and other reasons, better on-farm biosecurity can significantly increase farm profitability.

### Exotic diseases

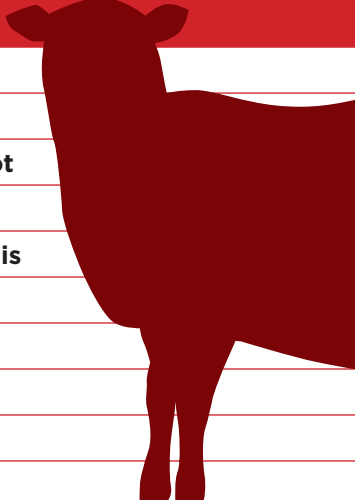
Better on-farm biosecurity also improves New Zealand's national resilience to outbreaks of exotic disease. Where biosecurity measures are in place that limit the spread of established diseases they also limit the "silent spread" of an exotic disease (for example, foot and mouth disease) before it is detectable.


We know that the overall size of any exotic disease outbreak may be reduced in an environment where good biosecurity practices form part of everyday farming practice, rather than being introduced after the outbreak has started.

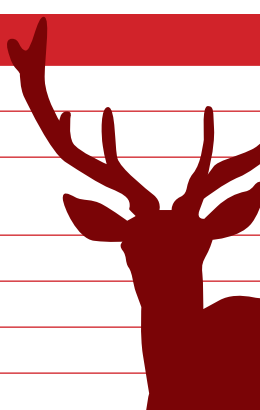
Some outbreaks of exotic disease may be prevented altogether where the responsible pest has entered New Zealand but is prevented from reaching susceptible animals by good biosecurity practices being followed by farmers.

## Endemic diseases of economic significance in New Zealand drystock

The following pests and diseases (in no particular order) are listed to provide a picture of the sorts of things that cause significant issues on drystock farms in New Zealand.

SHEEP	
	<b>Pneumonia</b>
	<b>Johne's disease</b>
	<b>Foot scald and footrot</b>
	<b>Ovine epididymitis</b>
	<b>Caseous lymphadenitis</b>
	<b>Campylobacteriosis</b>
	<b>Toxoplasmosis</b>
	<b>Nematode parasites</b>
	<b>Clostridial diseases</b>
	<b>Salmonellosis</b>

CATTLE	
	<b>Bovine viral diarrhoea</b>
	<b>Bovine tuberculosis</b>
	<b>Infectious bovine keratoconjunctivitis ('pink eye')</b>
	<b>Leptospirosis</b>
	<b>Salmonellosis</b>
	<b>Theileriosis</b>
	<b>Cryptosporidiosis</b>
	<b>Nematode parasites</b>
	<b>Rotavirus</b>
	<b>Johne's disease</b>

DEER	
	<b>Foot abscess/fusiformis</b>
	<b>Bovine tuberculosis</b>
	<b>Parasites (lungworms and GI tract parasites)</b>
	<b>Yersiniosis</b>
	<b>Johne's disease</b>
	<b>Leptospirosis</b>
	<b>Ticks and lice</b>



## How do pests and diseases spread within and between farms?

This depends upon the pest or disease in question, but in general the following seven routes of transmission account for most of the risk:

- Livestock movements
- Animal wastes
- Feed and water
- Airborne dispersal
- Vehicles and equipment
- Pest animals and wildlife
- Farm staff and visitors.

## What can farmers do to increase biosecurity on their farms?

A wide variety of interventions can be applied to improve on-farm biosecurity, and their suitability is heavily dependent upon the type of farm, species kept, disease status and existing management practices. **Farmers are strongly encouraged to discuss this with your veterinarian and develop a written biosecurity plan for your farm.**

The following general biosecurity guidance will apply to most producers. It is grouped into seven different biosecurity intervention points.

## BIOSECURITY INTERVENTION POINT 1: LIVESTOCK MOVEMENTS

**Direct contact between a healthy animal and an infected animal is the most common way for pests and diseases to spread. Therefore managing both livestock movements and the introduction of new animals is particularly important.**

### Recommended practices

- Check the health status of stock before purchasing. e.g. the results of TB or Johne's disease tests and farm of origin history. Only buy livestock from suppliers who can provide information about veterinary treatments and the health status of their animals.
- As a minimum, hold new stock in quarantine (isolation in separate pens) for 24 hours to ensure they have had time to empty out prior to release from the yards, remembering to provide clean drinking water.
- Newly arrived sheep should be routinely given an appropriate quarantine drench. This would be best given on the farm of origin but in many cases will have to be given on arrival.
- On release from quarantine pens, monitor new stock in separate paddocks (ideally for seven days) and treat if necessary before integrating them with other mobs.
- Quarantine paddocks or pens should be as near as possible to the farm entrance and well away from other stock. As a minimum, a double fenced 3 metre gap should be provided between newly arrived animals and resident stock.
- These steps are especially important if buying through saleyards as animals in saleyards come into close contact with many stock from different sources so represent a particularly high biosecurity risk.
- Regularly inspect for fencing faults such as gaps, loose wires or washouts and swiftly maintain adequate boundary fences—do not allow nose-to-nose or other contact between your own and your neighbour's stock.
- For livestock that temporarily leave the property (e.g. for shows) assess their likely contact with other livestock while away. If concerned or unsure, treat returning animals in the same way as new purchases.
- ALWAYS comply with your legal requirement to fully and accurately complete Animal Status Declaration (ASD) forms for every livestock movement you make off your farm and to receive and keep copies of ASDs for livestock movements on to your farm. Maintain copies of ASD forms and ensure that they are stored in good order.
- Remember to comply with your NAIT obligations on movement recording for cattle and deer to enable tracing of the source of exotic diseases or food safety contaminants.

## BIOSECURITY INTERVENTION POINT 2: ANIMAL HEALTH MANAGEMENT

**Disease prevention and control require regular attention to stock health, knowledge, planning, good record keeping and compliance with domestic regulations.**

### Recommended practices

#### Prevention

- Prevention is hugely important: develop a farm animal health plan or calendar with your veterinarian. This will include vaccination and drench programmes appropriate to the needs of your farm business.
- Consider buying stock on the basis of a high breeding value for disease resistance where this is available.
- Check the animal health details of incoming animals and isolate and treat those animals if their health status is lower than existing animals.
- Regularly worm farm dogs and prevent the access of other dogs onto the property – dogs can spread disease to your stock.

#### Treatment

- Regularly inspect your animals and know the signs of disease to ensure problems are detected early.
- Seek early advice from a veterinarian in relation to any unusual signs, sickness or death or where a large number of animals are affected. Isolate and treat animals appropriately for the specific infection they are suffering from—including animals in the mob that do not yet show signs if this is recommended.
- Always follow veterinary or label advice when using veterinary medicines or other agricompsounds and ensure that you observe withholding periods. Using inappropriate drugs will fail to kill the pest and not finishing courses of drugs can lead to drug resistance.
- Ensure that you use clean needles or syringes when vaccinating, and that you follow the advice of your veterinarian with regards to good management practice when vaccinating or drenching animals. Certain diseases can be spread from animal to animal through the use of contaminated needles or equipment.
- Maintain thorough records of animal health activities and treatments—preferably for each animal but at least to the mob level.



## BIOSECURITY INTERVENTION POINT 3: PEOPLE AND EQUIPMENT

**Contamination can be readily brought onto and spread around your farm by visitors, their vehicles or via equipment that has been used on other farms or at saleyards.**

### Recommended practices

- Keep the farm, yards and storage areas clean, tidy and free of vermin.
- Limit the unnecessary movement of people, pets and vehicles onto and around the property, especially the areas where animals are kept.
- Minimise the number of entry points and restrict uncontrolled access to the rest of the farm.
- Define and, where appropriate, signpost 'permitted access areas' for farm visitors (e.g. veterinarians, livestock agents, feed and fencing contractors, shearers) and delivery and pick-up vehicles (e.g. stock trucks). Notify these operators prior to entry.
- Where direct contact with animals has occurred, clean and disinfect yourself, vehicles and equipment.
- Encourage the use of protective clothing and personal cleanliness when visitors move onto your property. **Remember, young children are at particularly high risk of contracting serious gastrointestinal illnesses from contact with stock and animal faeces on-farm.**
- Provide facilities (e.g. hoses, disinfectant, brushes etc.) in 'permitted access areas' for farm contractors and visitors to clean boots and equipment on arrival and before departure.
- Consider including a farm visitor register that records who has visited, purpose of the visit and where on the farm they visited.
- Ensure appropriate signage is available to inform visitors of your biosecurity requirements and what you want them to do on arrival.
- Do not share injecting and dosing/drenching equipment with other farms.
- Only share vehicles and equipment with other properties if you all agree to clean and/or disinfect them before and after use.





## BIOSECURITY INTERVENTION POINT 4: FEED AND WATER

**Pasture, supplementary feed and water can be contaminated with pests and diseases (including weeds) and introduce these onto your farm.**

### Recommended practices

- Under Biosecurity (Ruminant Protein) Regulations, cattle, sheep and deer must not be allowed to eat any products that include ruminant proteins. This includes feed intended for animals such as pigs or horses, food scraps and catering waste. Feed intended for poultry and pigs may contain these materials and other veterinary medicines that are prohibited for use in drystock and, therefore, must not be fed.
- Inspect stockfeed (including non-traditional feed such as low-grade surplus horticultural produce) on delivery for evidence of pests, damage and contaminants and manage appropriately. Remember that baleage and other supplementary crops represent a significant risk for the introduction of weed species.
- Do not feed uncooked offals to farm dogs or let them have access to them—this is a legal requirement applying to the whole of New Zealand to prevent the reintroduction of hydatids disease.

## BIOSECURITY INTERVENTION POINT 5: PEST CONTROL

**Invasive weeds, vermin and wild or feral animals are able to enter your farm unaided and spread pests and disease to your stock and paddocks. Vigilance and active management can mitigate these risks.**

### Recommended practices

- Regularly monitor and control vermin, wild or feral animals, pests and weed populations to prevent impact on stock and production systems.
- Consider coordinating your efforts with neighbours to maximise the effectiveness of your own actions.
- Maintain all fencing to prevent access of wild or feral animals.



## BIOSECURITY INTERVENTION POINT 6: ANIMAL WASTE AND CARCASS MANAGEMENT

**Dead animals and waste are a high risk source for some diseases. The life cycle of many pests involves them being shed in urine or faeces and the contaminated pasture being re-ingested. Some animals are super-shedders whose waste is highly infectious.**

### Recommended practices

- Manage animal waste to reduce the potential for swift disease spread through the herd by the ingestion of pastures contaminated with infected waste e.g. provide multiple feeding or watering facilities to discourage the whole mob congregating and defecating together.
- Don't bring young stock (which are more vulnerable to disease) onto paddocks vacated by older animals (which are more disease resistant and will probably include disease carriers) without a reasonable stand-down period, such as 7 days between grazings by different stock classes.
- Check regularly for dead stock and remove immediately.
- Locate carcasses and waste disposal areas away from paddocks, yards and sheds. Secure and contain these areas to prevent access by livestock, feral and domestic animals and wildlife.
- Don't put your water supply and that of your neighbours at risk from airborne or leaching-related contamination – bear this in mind when constructing and locating your disposal areas.

## BIOSECURITY INTERVENTION POINT 7: SHARED KNOWLEDGE AND UNDERSTANDING

**For on-farm biosecurity to be effective, everyone involved in your farming business must be aware of your requirements and why they are important.**

### Recommended practices

- Make good biosecurity practices something your staff and visitors are eager to respect, by treating them as indicators of your operation's quality rather than necessary evils or procedures done under sufferance.
- Ensure all staff understand their role in the implementation of biosecurity practices on your farm.
- Ensure staff responsible for livestock husbandry know how to identify sick and injured livestock.
- Ensure all staff know what to do in the event of a suspected emergency animal disease.
- Ensure all staff know where to find contact details for the local vet(s).

## What to do if you suspect exotic disease on your farm

It should be reassuring to know that the overwhelming majority of suspect exotic disease cases, even the very serious or strange looking, prove to not be exotic. However, you can never be sure and this is not a call any farmer can or should make.

To protect yourself, your neighbours and your country immediately report all suspect exotic disease by phoning the **Ministry for Primary Industries on 0800 80 99 66** or report any unusual syndromes to your local veterinarian.

For more information about existing domestic biosecurity legislation, please see: [www.biosecurity.govt.nz/regs/domestic](http://www.biosecurity.govt.nz/regs/domestic)

### Acknowledgements:

Beef + Lamb New Zealand and Deer Industry New Zealand would like to acknowledge the input and feedback provided by the following organisations in producing this document:

Ministry for Primary Industries

Animal Health Australia

OSPRI New Zealand

New Zealand Veterinary Association—Sheep and Beef Committee

New Zealand Deer Farmers' Association



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