good farm
PLANNING HUB

Taking an Integrated Approach to Farm Planning:

Module 3: Biosecurity

Biosecurity

As a Taranaki dairy farmer, creating a biosecurity plan involves several key considerations to protect your farm from pests and diseases.

Why tackling pests or diseases is important

- **Expense / Impact:** Once pests or diseases enter a farm they reduce production, are expensive to control and may result in restricted farming practises including stock movement and sales.
- **Legislative requirements:** In some cases, farmers are bound by legislation to control and meet the associated costs for controlling some weeds or diseases under regional management strategies (e.g. Mycoplasma Bovis, TB, Chilean Needle Grass and Nassella Tussock).
- **Preventative:** While pest plants, insects and diseases are spread by natural means such as birds, wind and water, farming practices and other human activities are also significant factors contributing to their spread. Wherever possible, the best policy for farmers, the region and the country, is to prevent these pests and diseases entering in the first place.
- **Reduce spread:** In the unfortunate circumstances where pests and diseases do enter, the next best outcome is to ensure they are not spread further. Farmers can control the entry of pests and diseases on to the farm by taking steps to manage the movement of people, vehicles, machinery, stock, feed and seeds as they pass through the farm gate.

Biosecurity protocol can be divided into three stages

1. **Before:** Conversations to be had prior to anyone entering the farm.
2. **At entry:** Biosecurity requirements on entry to the farm and during the visit.
3. **Contain:** Biosecurity practices to prevent pests and diseases from moving off the farm and affecting others.

1. Understanding Biosecurity Risks

- Pests and Diseases: Identify the specific pests, diseases, and weeds that pose a threat to your farm. This includes both endemic and invasive species.
- Vectors: Understand how these threats can be introduced and spread, such as through animals, plants, equipment, and human movement.

2. Develop management plan for existing risks

- For existing biosecurity risks on your farm, you can develop a management plan to prevent the spread to others and also hopefully reduce its presence on your farm. These management plans should align with any requirements from councils or MPI and include moving protocols.

3. Prevention Measures

- Farm Boundaries: Implement measures to control access to your farm, such as fencing and signage to discourage unauthorised entry.
- Cleaning and Disinfection: Establish protocols for cleaning and disinfecting equipment, vehicles, and footwear to prevent the spread of contaminants.
- Quarantine Procedures: Develop procedures for isolating new animals or plants before introducing them to your farm.

4. Develop induction conversations check lists

- These check lists represent the day to day implementation of your moving protocols.

5. Implement the required infrastructure

- There may be new infrastructure required to implement your moving protocols e.g. wash down station. And you will need a Biosecurity Map to show where the necessary biosecurity infrastructure and risks are located on the farm.

6. Develop action plans

- It is unlikely you will have the perfect biosecurity plan in place immediately as so you will need to create an Action Plan to achieve the necessary changes.

7. Monitoring and Surveillance

- Regular Inspections: Conduct regular inspections of your farm to detect any signs of pests or diseases early.
- Record Keeping: Maintain detailed records of inspections, pest sightings, and biosecurity actions taken.

Biosecurity risks inside the farm

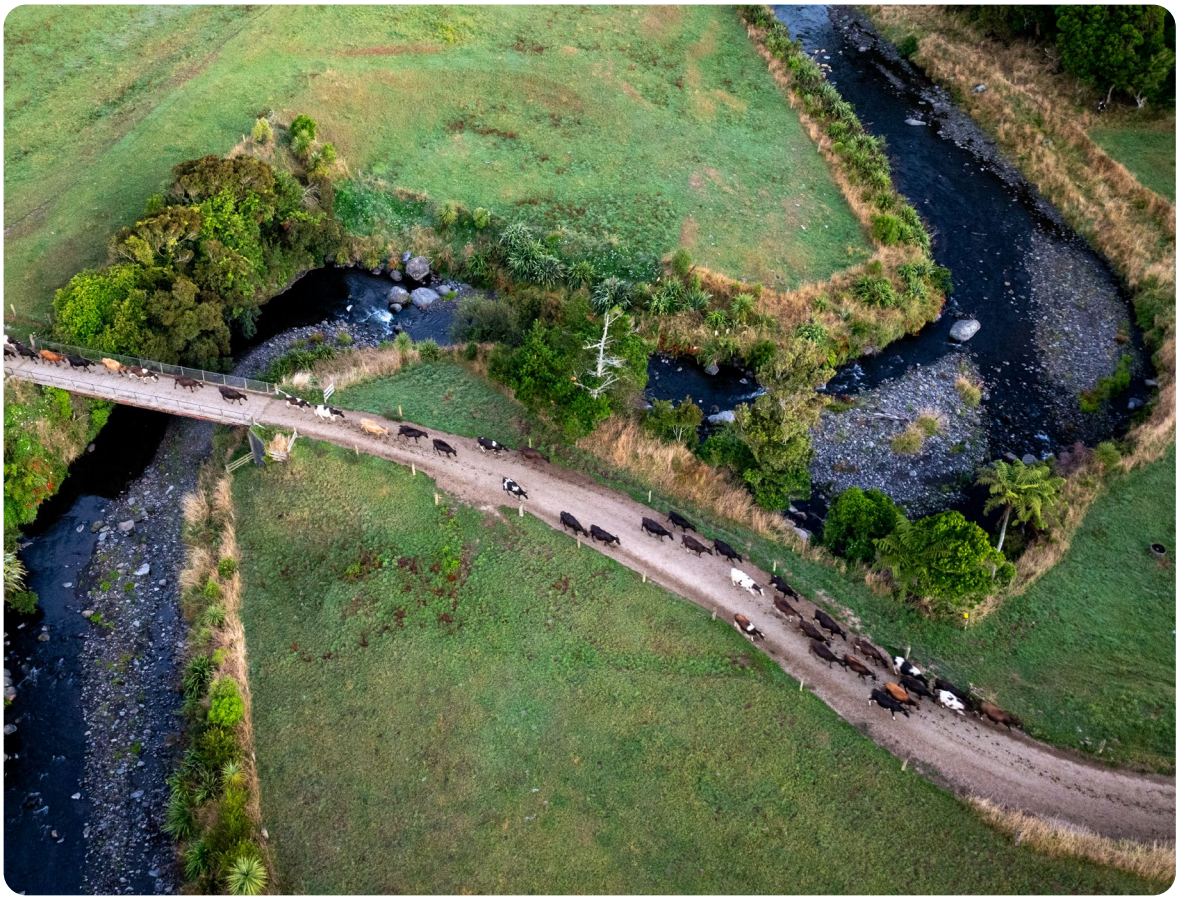
List the biosecurity risks inside your farm that pose a risk to others.

You can choose to do only notifiable biosecurity risks (e.g. Chilean Needle grass, Mycoplasma Bovis) or others. The risks can cover pasture pests, biodiversity pest plants, animal pests, animal diseases, other.

Name	Description of biosecurity issues inside your farm and how to plan to manage them	Area

Your Biosecurity Map

- Entry point(s) to farm.
- Sites where biosecurity signage is located.
- Boundary fences and locked gates.
- Any boundary fences, laneways, fenced with two-metre strips to prevent nose to nose contact of stock.
- Areas in boundary fences that are not stock proof.
- Quarantine areas for new or stray stock.
- Gravelled parking area for visitors to park.
- Wash down for cleaning machinery and vehicles.
- Disinfecting stations for boots, or small equipment.
- Red (no-go) and green (unrestricted access) zones on the farm
- Location of plant biosecurity risks such as pest plants (eg Chilean needle grass, nassella tussock, wilding conifers.
- Areas targeted for specific biosecurity risk control.
- Blocks restricted for bought in cattle grazing.



Biosecurity protocols

Generic protocols for moving people, machinery and equipment

Protocol	Check
Signage: We display biosecurity signs with clear instructions and contact details at all vehicle access points that inform visitors of our biosecurity status and processes. Entry, cleaning and restricted areas are identified by signage and on the biosecurity map.	Yes No N/A
Induction: We carry out combined health and safety and biosecurity induction conversations with visitors, and contractors at the appropriate time.	Yes No
Entry points: We only allow access to the farm for machinery and equipment visiting the farm through identified entry areas.	Yes No
Arrival: People bringing on machinery and equipment on the farm are asked to sign in and out on the Register and pick up the biosecurity and health and safety hazards map. People are asked to arrive in clean clothes.	Yes No N/A
Threats: We ask contractors and visitors to inform us where and when the equipment and/or machinery was last used and what biosecurity risks were on that property.	Yes No
Farm zones: The farm has been divided into risk areas. Green zone allows unrestricted access to visitors if they remain on tracks or parking area. Stock are restricted from this area. The red area is "no go" areas without our permission and the biosecurity processes are applied here. Stock are grazed in these areas.	Yes No N/A
Parking: Non-essential vehicles are to be left in green zone in designated metalled parking areas. When necessary alternative transport is provided at this point.	Yes No
Cleaning: All vehicles, machinery and equipment is cleaned before and after leaving entering the red zone at the farm wash down station. The wash down area contains a high pressure hose, is constructed of non-porous material and the waste water is collected in a sump and is disposed of away from yards, paddocks, crops and waterways. The wash down area is kept clear of pest plants. At the wash down facility there is also disinfectant scrubbing brushes, foot baths and sprayers to disinfect (1 percent Virkon) all equipment and footwear. Brooms are provided for the cleaning of internal vehicle spaces. There is a cleaning record form that is to be filled in by all visitors and contractors at the wash down station. An air compressor is used for cleaning engine components and shearer's hand pieces to ensure pest seeds are removed. Please don't be offended when we inspect the machinery, equipment, clothes or footwear for cleanliness.	Yes No N/A
Lending: We are careful in the lending and borrowing of our own equipment and machinery between properties and apply the same processes as for visitors and contractors.	Yes No
Footwear: Contractors and visitors are all required to wear foot wear protected with putties and to carefully inspect their footwear and clothing before entering and leaving the farm.	Yes No
Inspection: When appropriate (e.g. in core Chilean needle grass area, during disease outbreak) vehicles, machinery and equipment has been independently assessed by designated inspector to be clean before leaving the property.	Yes No N/A

Induction conversations – for moving people, machinery and equipment

Health and Safety	Check
Before arriving at your property, have you:	
Confirmed where they will be going and what they will be doing.	Yes
Got an approximate time they will be entering and exiting.	Yes
Advised them of any risks to their safety on the way to, and in the area, that they will be working.	Yes
Confirmed they have a safety management system that covers the work they are there to do.	Yes
Confirmed they are competent and equipped to do the work.	Yes No
Advised them not to interfere with plant or equipment or enter any work areas or farm buildings that they have not been authorised/have no reason to visit. eg shearing shed, yard, milking parlour	Yes No N/A
Advised them not to disturb or unnecessarily approach farm animals, or work activities, and to leave gates as they found them.	Yes No
Established an agreed method for communicating while on the farm should additional hazards develop during the day.	Yes No
Advised farm staff of the visitors pending visit; their activity, location, timing and duration of visit.	Yes
On arrival on your property, have you:	
Noted their arrival. Have they sign in and given you an estimated time for departure and contact details.	Yes No
Identified for them hazards in their working area and provided them with a hazard map. Arranged signage for any significant hazards.	Yes No
Advised them of any farm activities on the day that may pose them a risk.	Yes
Discussed how an emergency event would be managed.	Yes
Asked visitor/contractor to explained any risks that their work poses to others and how that will be managed to ensure safety.	Yes No
Determined a means to communicate with them while they are on farm.	Yes
On leaving your property, have you:	
Noted their departure. Have they signed out and let you know that they, their staff and their equipment has left the property.	Yes No
Have you asked them about and noted down any new or created hazards.	Yes
Have you asked them about and noted down any accidents or near misses that occurred whilst the work was done.	Yes No

Items to cover for Biosecurity

Items	Check
Before arriving at your property, have you:	
Recorded any biosecurity risks they have encountered on previously visited properties.	Yes No
Requested that they arrive at the farm gate clean or provided high pressure wash down facilities for them to clean vehicles, machinery and equipment. When significant disease risk apparent, brushes/hot water/disinfectant and/or steam has been applied.	Yes No N/A
Checked pets and clothing, including boots, for potential contamination and cleaned appropriately (eg sheep measles, seeds captured in pet coats).	Yes No
Provided a designated parking area for a visitor to park or to be inspected for cleanliness.	Yes No
Requested that only essential vehicles enter the property. Provided a designated parking area for non-essential vehicles or discussed alternative transport arrangements with them.	Yes No
Advised visitors of any biosecurity risks that exist on your property.	Yes No
Made a copy of your biosecurity plan available to visitors before they arrive and again at sign-in.	Yes No
On arrival on your property, have you:	
Requested contractors records showing you where and when their machinery and equipment was last used and when it was last cleaned using appropriate wash down facilities.	Yes No
Inspected machinery, equipment, animals and clothing for cleanliness.	Yes No
Requested that non-essential vehicles are left in the designated parking area and/or alternative transport arrangements used.	Yes No
Put up signage on the property indicating any biosecurity risks and any associated requirements	Yes No
On leaving your property, have you:	
Ensured any vehicles, machinery and equipment are cleaned using your high pressure wash down facility (includes pad and capture). If appropriate they have cleaned with brushes/hot water/disinfectant and/or steam.	Yes No N/A
When appropriate (eg in core Chilean Needle Grass area, disease outbreak), independently assessed (by designated inspector) that any vehicles, machinery and equipment are clean before leaving the property.	Yes No N/A

Generic protocols or moving stock

Protocol	Check
Sourcing stock: When buying and selling stock we try to develop long-term relationships to source or sell store stock with other farmers who maintain good health and biosecurity records. Examples of records we request include Chilean needle grass, nassella tussock, velvet leaf, TB, Johnes, BVD, Mycoplasma Bovis, drench resistance, footrot, pink eye, leptospirosis, salmonellosis, theileriosis, rotavirus, yersiniosis etc).	Yes No N/A
ASD form: We ensure that all stock leaving and entering the farm have complete and accurate ASD (animal declaration status) forms and we retain all these forms. We note any issues.	Yes No
NAIT: We ensure all cattle and deer moving on or off the farm are individually identified and are recorded on the NAIT system. We transport stock in clean trucks, and our best endeavours are made to minimise contact with other stock during yarding and in transport.	Yes No N/A
Inspection: On arrival we inspect all incoming stock for seeds of pest plants (eg Chilean Needle grass).	Yes No
Empty/quarantine: On arrival we offer stock feed and water in the yards, administer quarantine drenches and vaccinations if needed and empty them out before transferring them to a securely double fenced quarantine area for seven days where they are regularly observed.	Yes No N/A
Sick stock: We separate sick animals from the rest of the mob	Yes
Separation: We keep our permanent breeding stock separate (prevent nose to nose contact) from bought in stock and we keep verifiable records of this grazing system. We contain bought in stock in separate blocks (preferably with their own yards) from permanent breeding stock.	Yes No N/A
Records: We maintain records of all animal health treatments.	Yes
Boundary: We inspect boundary fences regularly and lock boundary gates. Our boundary fences prevent nose to nose contact of stock. We have established two-metre electric fence barriers for cattle along boundary/road/laneway fences using outriggers or separate electric fence.	Yes No N/A
Yards: We use portable ramps and yards for bought in stock or keep permanent yards clean and establish stand down periods and disinfectant processes in permanent yards to reduce biosecurity risks from bought in stock with unknown biosecurity status.	Yes No N/A
Dogs/horses: We ensure that farm dogs are not carrying seed and that horses' hooves and fetlocks are free of soil, mud and seed before and after leaving the property. We ensure our dogs are vaccinated and wormed before leaving the property.	Yes No N/A

Induction conversations

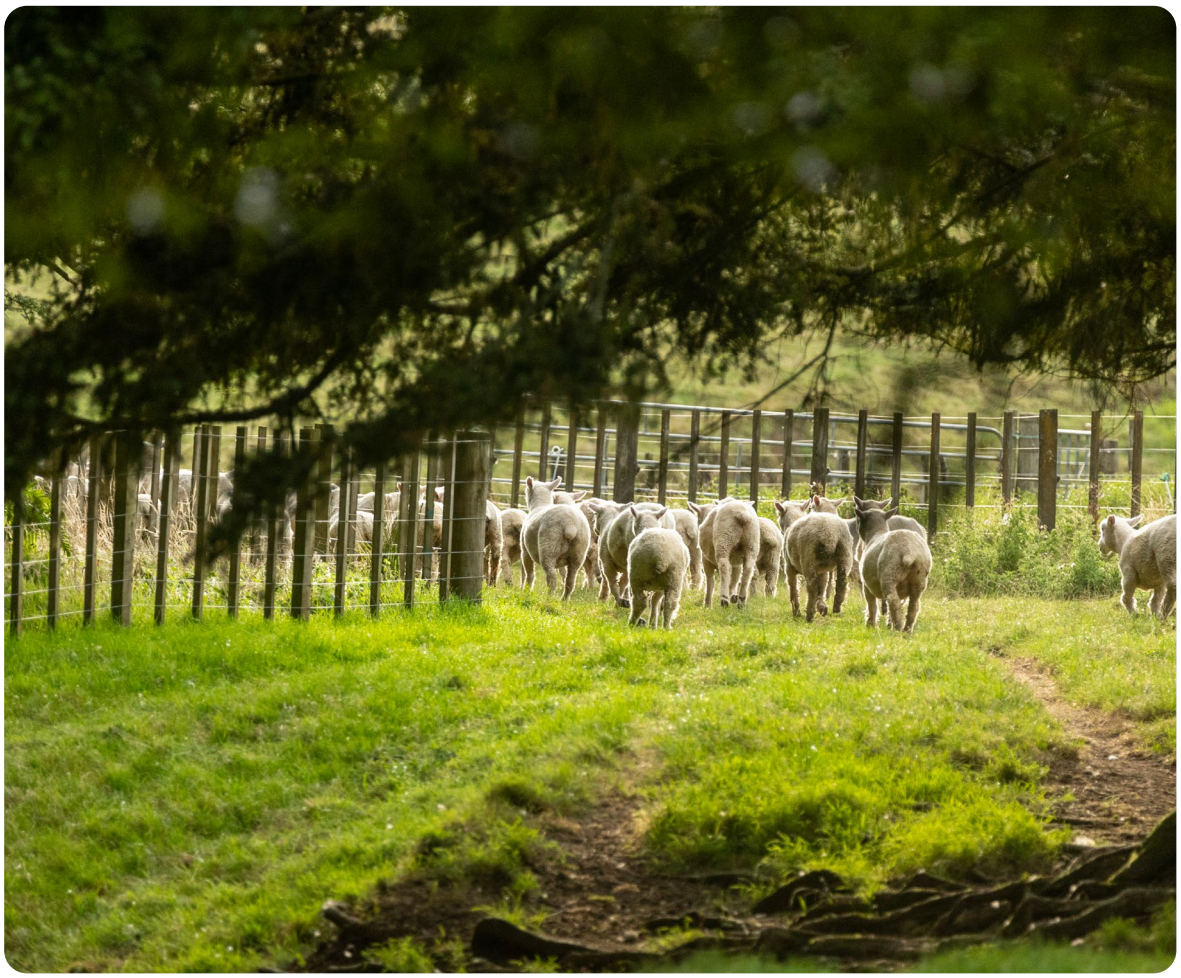
Health & Safety	Check
Before and on arrival at the farm	
Determined approximate time they will be arriving.	Yes
Identified any health and safety risks due to bad temperament, horns, zoonotic diseases (eg scabby mouth, ring worm) and status of protective zoonotic vaccinations (eg leptospirosis).	Yes No
Determined that stock handling and transport facilities pose no special risk during the transport, offloading and containment of the stock	Yes No

Biosecurity	Check
Before arriving at your property	
Determined location of source property and any biosecurity risks associated with the source property. Or discussed the location and have supporting records on animal treatments from source farmer. (eg weed risks (eg Chilean needle grass, nassella tussock, velvet leaf etc) or animal health risks (eg TB status, Johnes, BVD, Mycoplasma Bovis, drench resistance, footrot, pink eye, leptospirosis, salmonellosis, Theileriosis, Rotavirus, yersiniosis etc).	Yes No N/A
Viewed/discussed the biosecurity plan from the source property.	Yes
Recorded and discussed farm of origin and stock movements prior to arrival. Recorded and discussed other stock movements on/off the source property.	Yes No
Checked that appropriate health checks and/or vaccinations have been completed before stock movement (eg. TB, BVD, Johnes)	Yes No
Discussed with trucking firm practises to minimise the risks associated with trucking (eg cleaning of stock transport truck before loading stock, risks posed by other stock on the truck).	Yes No
Checked that stock have received a quarantine drench the day before the stock movement.	Yes
Discussed stock grazing history with regards to exposure to pest weeds (eg chilean needle grass, nassella tussock, velvet leaf).	Yes No
Discussed that where possible, the entry of dogs on to the property is prohibited. Dogs entering the property have been wormed and treated for sheep measles as per recommended protocols.	Yes No N/A

Biosecurity	Check
On arriving at your property	
Observed stock state of health and checked for presence of weed seeds in coats and in the mud in feet.	Yes No
Checked that stock have arrived with completed ASD form.	Yes
Insured that stock have received a quarantine drench, if not done prior to travelling.	Yes
Determined that NAIT stock recording has been completed by previous owner within 48 hours of the animal movement and viewed historical stock movements.	Yes No
Directed stock to a special quarantine area (off pasture) which is separated from other stock on the farm by at least 3m and not to be used subsequently by stock on the farm.	Yes No
Arranged for stock to be held for 24 hours to empty out with feed and water provided. Stock have been transferred to a well fenced quarantine paddock for a further seven days, maintaining a three-metre separation from other stock. During this time, stock health is observed and vaccinations applied if needed.	Yes No N/A
Ensured that risk of nose to nose contact with stock from neighbouring properties is removed by double fencing or planned paddock rotations. Boundary fences are secure and gates are locked.	Yes No N/A
On leaving your property	
Made sure your biosecurity plan outlines biosecurity risks and mitigating actions and shared your biosecurity plan with the new owner of the stock.	Yes No
Discussed with transport agency and stock agents with regards to biosecurity any threats posed by the stock (eg weed risks, animal health risks).	Yes No
Ensured that stock have received a quarantine drench within 24 hours of movement.	Yes
Filled in an ASD form accurately for the stock you are moving.	Yes
Observed stock carefully before shipping and removed any that are unwell.	Yes
Ensured any stock grazing protocols with respect to biosecurity risks (eg Chilean Needle grass) have been adhered to.	Yes No
Ensured the best endeavours have been made to prevent contact between your stock and other stock during transit.	Yes No
Completed appropriate health checks and vaccinations before stock movement.	Yes
Checked that dogs have current vaccinations (eg kennel cough, Lepto, Parvo etc) and dosing is current (worms, sheep measles).	Yes No
Ensured that when biosecurity risks exist on the farm, horses are cleaned to remove weed seeds from coat and mud (including in hooves) before leaving the property.	Yes No

Generic protocols for moving feed, supplies and crops

Protocol	Check
Disease: We don't feed any stock feeds that contain ruminant protein to ruminant livestock. We only feed cooked or frozen meat and offals to farm dogs.	Yes No
Certification: We only buy or sell certified seed with weed purity tests.	Yes
Supplements: We make our supplements for sale early before weeds have seeded. We feed out bought in supplements on cultivatable land and we observe these areas and those where new seed has been sown for new weeds and pests and these are identified ASAP using AgPest website Link and/or by contacting the local biosecurity officer. We inform purchasers of stock feed and supplies of the biosecurity risks associated with the products.	Yes No N/A
Inspection: We inspect our pastures (including the roadside) and crops for pest weeds. We inspect purchased stock feed for evidence of pests, damage and contaminants.	Yes No
Source: We only purchase stock feeds (eg crops, pellets, supplements, palm kernel extract) and supplies (eg metal) from reputable suppliers who maintain good animal health and biosecurity records.	Yes No N/A
Storage: We store stockfeeds to prevent contamination by livestock and vermin	Yes



Induction conversations

Health & Safety	Check
Unload supplies using appropriate equipment and stack using best practice.	Yes
Observe feed or mould and if needed test for toxic compounds.	Yes
Use appropriate protective gear in the handling of supplies (dust, moulds, gloves)	Yes

Biosecurity	Check
Before arriving at your property	
Determined the source of the supplies and discussed weed and pest biosecurity risks associated with the source property and/or the location.	Yes No
Viewed or discussed biosecurity plan from the source property	Yes
Ensured that hay and silage are high quality and were harvested early before weeds are set and seeds become viable.	Yes No
Carefully inspected pastures or crops cut for stock feed before harvest for pest weeds and insects that pose biosecurity risks.	Yes No
Checked that seeds used for re-grassing and cropping are registered and certified	Yes
Checked that metal used on farm tracks is guaranteed weed free.	Yes
On arriving at your property	
Completed records showing where feed is fed out and where seeds are sown.	Yes
Ensure that feed bought in is fed on cultivatable land. Notifiable weeds and pests are easier to control where cropping rotations can be combined with strategic herbicide use.	Yes No
Carefully observed for new weeds and pests any areas where bought in feed has been fed, or seed has been sown, and these are identified ASAP using AgPest website Link and/or by contacting the local biosecurity officer.	Yes No N/A
On leaving at your property	
Ensured that supplies are not sold from your property when they contain pest weeds or pose other biosecurity risks.	Yes No
Ensured that seed produced on the farm has been sold with a weed purity test.	Yes

Action plans for improving biosecurity

Improvements in biosecurity processes	Priority 1 = high > 5 = low	Due Date	Est cost

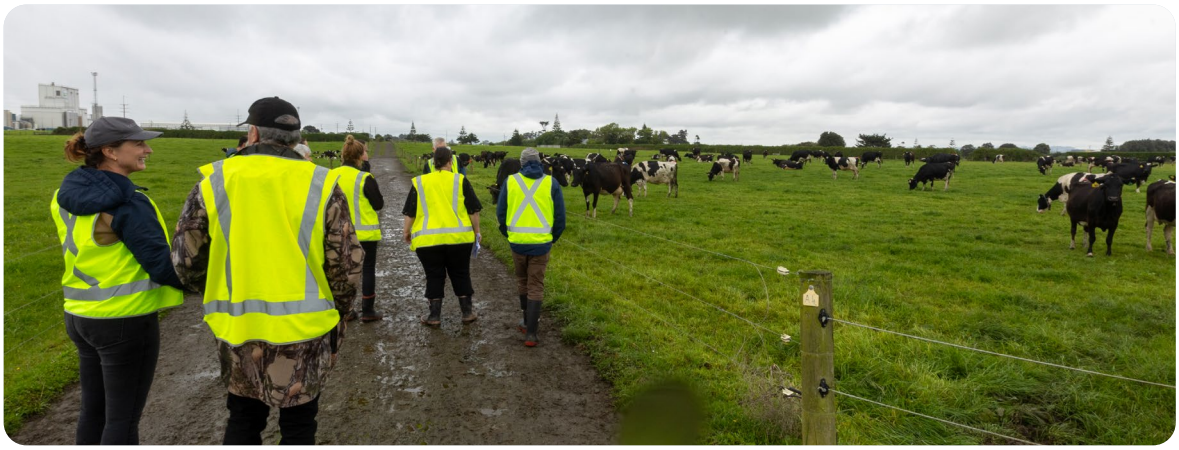
My final check list

Education and Training	Check
Staff Training: Educate farm staff on biosecurity protocols and the importance of adhering to them.	Yes No
Community Engagement: Participate in community biosecurity initiatives and stay informed about regional biosecurity threats.	Yes No

Emergency Response	Check
Action Plan: Develop a clear action plan for responding to a biosecurity incident, including steps for containment, reporting, and eradication.	Yes No
Contact Information: Keep a list of key contacts, such as veterinarians, biosecurity officers, and neighbouring farmers.	Yes No

Collaboration	Check
Work with Experts: Collaborate with organisations like Biosecurity Taranaki, DairyNZ, and Federated Farmers for support and resources.	Yes No
Share Information: Communicate with neighbouring farms and local communities to stay updated on biosecurity threats and best practices.	Yes No

Review and Update	Check
Regular Review: Periodically review and update your biosecurity plan to ensure it remains effective and relevant.	Yes No
Feedback: Incorporate feedback from staff, experts, and other farmers to improve your plan.	Yes



Useful resources

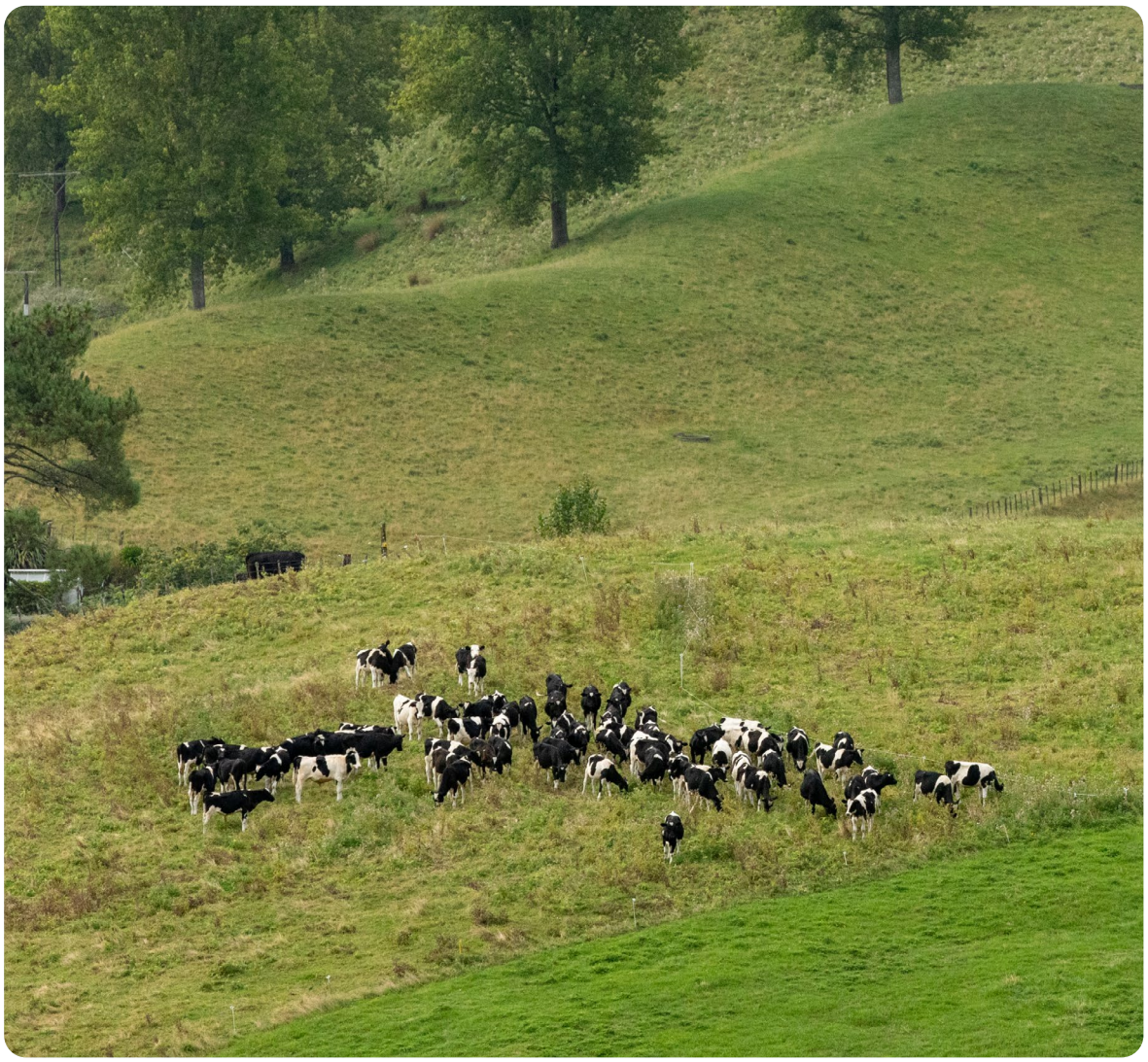
Beef and Lamb Biosecurity Module

Use this as a guide for developing your biosecurity plan, adapting the information to suit dairy farming.

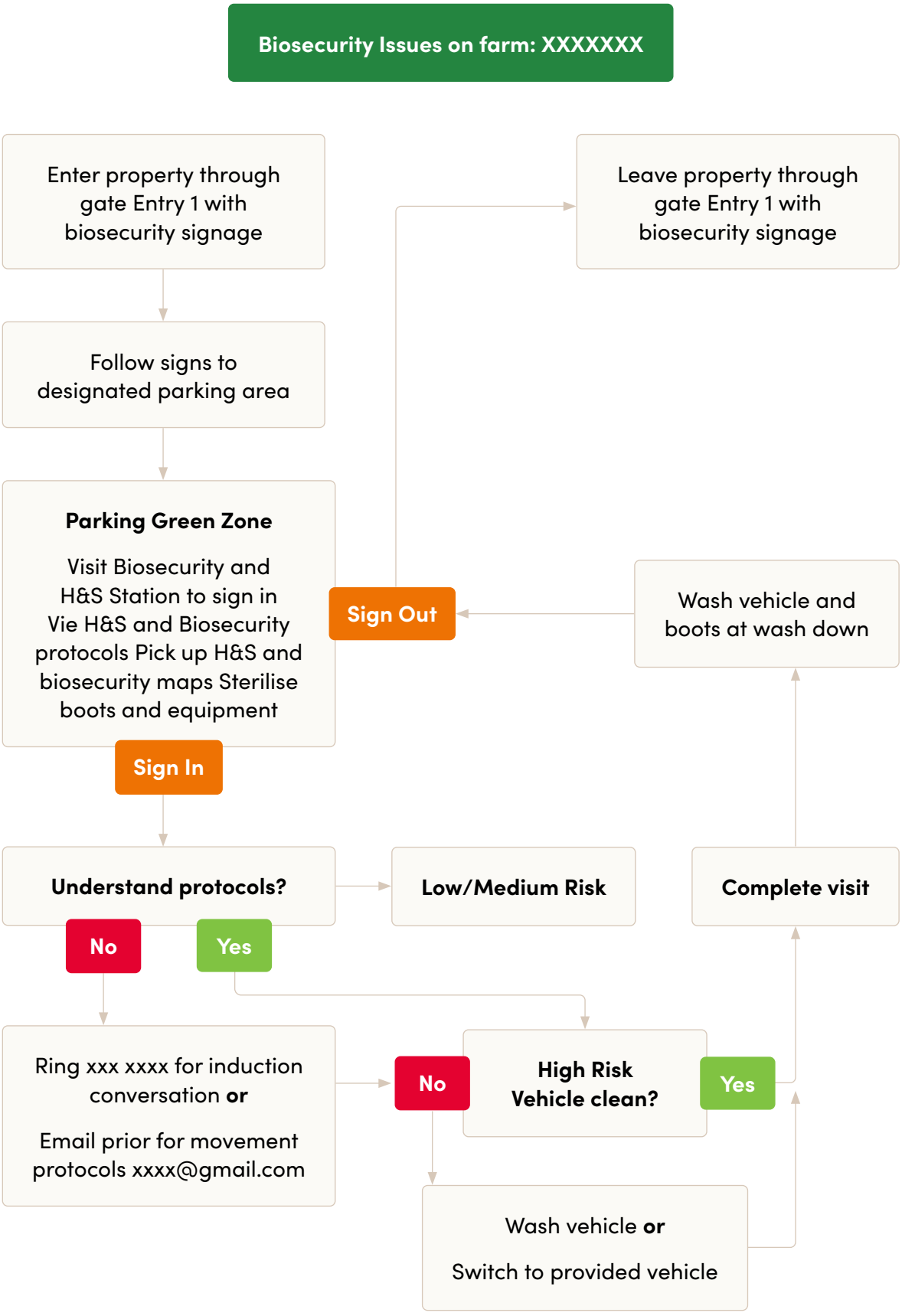
Online Tools

Leverage online biosecurity resources and reporting tools, such as the iNaturalist app for identifying and reporting pest plants.

- https://goodfarm.nz/resources/biosecurity
- https://www.dairynz.co.nz/business/biosecurity



Biosecurity text diagram for visitors



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