OSPRI

ANNUAL REPORT
2017/2018


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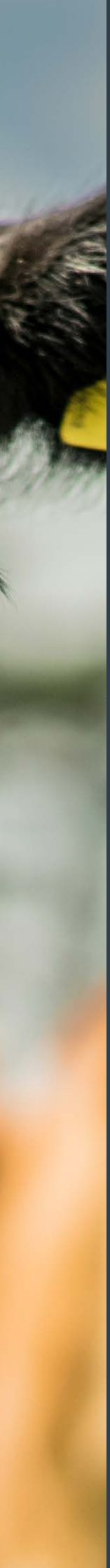

ANNUAL REPORT
2017/2018

OSPRI New Zealand (OSPRI) was established on 1 July 2013. It currently manages the National Animal Identification and Tracing (NAIT) and TBfree programmes.

This is the Annual Report for OSPRI New Zealand Limited, NAIT Limited, TBfree New Zealand Limited and the NAIT Data Access Panel.

NAIT TBfree

OSPRI New Zealand's shareholders:

DairyNZ DEER INDUSTRY NEW ZEALAND beef+lamb new zealand Ministry for Primary Industries Manatū Ahu Matua

OSPRI New Zealand's Stakeholders' Council consists of representatives from:

Beef + Lamb New Zealand

Dairy Companies Association of New Zealand

DairyNZ

Deer Industry New Zealand

Federated Farmers Dairy

Federated Farmers Meat and Wool

Local Government New Zealand

Meat Industry Association New Zealand

Ministry for Primary Industries

New Zealand Deer Farmers Association

New Zealand Stock and Station Agents Association

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CHAIRMAN & CEO REPORT

Barry Harris
Chairman

Michelle Edge
Chief Executive

OSPRI's priorities, activities and projects during the 2017/18 financial year have remained focused on the aims of the two programmes managed by the company – the eradication of bovine TB, and delivering New Zealand's national animal identification and tracing programme (NAIT).

The completion of the NAIT review, with the support of industry and Government, was a major milestone in the past year. The review was aimed at evaluating the implementation of the programme since 2012 and establishing recommendations for continual improvement. Giving effect to the recommendations of the review will involve a mix of legislative, regulatory and operational changes.

OSPRI has commenced planning for the introduction of those review recommendations that are operational in nature. This includes system changes, supporting extension activities, and the development, consultation, and implementation of a series of standards. This work is a key focus of the first half of the upcoming year, together with concluding and implementing the action plan agreed with the Ministry of Primary Industries for a joint approach to compliance which will include clear roles for each agency in terms of reporting, monitoring, inspection and enforcement. OSPRI has already provided assistance to MPI compliance and verification operations by developing a compliance monitoring procedure, reporting tools and an escalation framework, and the provision of reporting.

Last year NAIT also provided livestock trace back reporting to support the MPI-led response to the *mycoplasma bovis* disease outbreak. The company has delivered over 5000 data reports since July 2017, provided epidemiological expertise, and developed a disease monitoring module within NAIT.

At the end of the June 2018 financial year there were 32 infected herds, and a further 190,000 hectares of vector risk area had been eradicated, adding up to 420,000 hectares reduced in the first two years of the current TB Plan and a total of 3.25 million hectares since 2011. The continued implementation of the TB Management Area framework and operational notice programme, and the introduction this year of Area Disease Management Plans and the Infected Case Management SOP, will support achievement of the 2026 livestock TB freedom milestone.

Other key TB Plan operational activities during the year included the development of a new procurement model for pest and testing operations, the launch of a national annual consultation process for operations, and supporting work for the introduction of the pilot for risk based testing in the 2018/19 year. The latter included development by the NAIT team of a post-mortem slaughter surveillance programme and associated training for processors, integration between the NAIT and DMS (TBfree) systems of TB testing data, and development of a consolidated registration form for NAIT and TBfree programmes. These projects further the strategic goal of utilising national traceability to support disease monitoring, surveillance and management.

OSPRI again supported the Department of Conservation's Battle for Our Birds this year and the company continues to investigate

> The completion of the NAIT review, with the support of industry and Government, was a major milestone in the past year.

opportunities for collaboration with DOC, Regional Councils and other agencies engaged in pest and predator control programmes where synergies exist that will assist the efficient achievement of the TB Plan objectives.

Of note is that the company has maintained its operational pest management spending and achieved a surplus in each of the last two financial years, adjusting to the reduced revenue model agreed by investors in 2015-16 and delivering improved financial outcomes for levy payers. This has been achieved by the introduction of a range of business efficiencies including outsourcing ICT infrastructure support. The surplus will support achievement of the 2026 TB Plan target despite upcoming forecast deficit years.

The eASD Pilot, supported by the Red Meat Profit Partnership (RMPP) also continued with great success to date. Participating processors included 13 sites nationally and there were a total of 500,000 transactions of ASD forms. A business case for integrating the eASD with NAIT to provide for both consignment and individual animal traceability was developed in 2017 for shareholder and investor consideration and the intention for the coming year is to establish an agreed approach for full industry-wide implementation.

Additional value-add projects undertaken during the year have been the deer industry initiated automation of deer date of birth assignment, and the Angus Pure genetic composition and animal attributes project.

Corporate activities completed in the 2017-18 year include:

- Release of the OSPRI Strategic Plan 2017-20 at the November 2017 AGM following development at shareholder and stakeholder forums
- Re-design of OSPRI's approach to RD&E investment to ensure a balanced portfolio of applied and fundamental research to support the TB programme
- Contribution to shareholder extension initiatives and industry events; this collaboration aims to integrate TB and NAIT materials to maximise shareholder reach and ensure best use of resources
- Implementation of the Health and Safety Strategy 2017-20
- Launch of the new integrated OSPRI website
- Expansion of the library of fact sheets and videos
- The development and launch of OSPRI's guiding principles
- Outsourcing of IT infrastructure and application hosting services, and the migration to Office 365
- Implementation of an online remuneration management tool, and targeted professional development for staff.

Shareholders initiated a review of the company's constitution during the past year which will see changes in 2018/19 to the way that directors are appointed, and to the role

and focus of the Stakeholders' Council and how that body interacts with the company and Board. The latter changes commenced during the year, and the Board looks forward to consolidating this process, and working more closely with the Council and its new Chair, James Buwalda.

The beginning of the 2018/19 year also sees changes at the Board and senior management level. Jeff Grant, Chair of OSPRI since its inception, stepped down for an overseas opportunity; both of us thank Jeff for his valuable input to the company over the past five years.

Priorities for the year ahead are outlined in the Annual Operating Plan released in July and include:

- Implementing the NAIT review recommendations in collaboration with Government including making enhancements to the online application
- Increasing focus on NAIT compliance as part of a joint strategy and action plan with Government
- Increasing overall awareness and uptake of NAIT across the supply chain by farmers, commercial enterprises and farm management system owners
- Continuing the implementation of the TB Plan to meet agreed eradication targets
- Modelling pest management investment and designing operational approaches to ensure targets specified in the TB Plan are met in the financial year and for the next five years
- Integrating post-mortem surveillance data to support TB detection and monitoring and commencing the move to risk-based testing
- Enhancing current disease management monitoring and surveillance approaches to ensure targets specified in the TB Plan are met in the 2026 financial year
- Continuing the eASD Pilot project and examining the options for full implementation
- Investing in ICT applications that support the NAIT and TB programmes to improve usability and efficiency and ensure these are future-proofed for sustainability in the medium and longer term
- Finalising the corporate and business efficiency initiatives established in the change process implemented from 2016 to early 2018.

Work progressed during the 2017/18 year will continue to be developed and implemented during the upcoming year, and we are positive this will lead to increased trust and confidence in the OSPRI programmes.

We're grateful to all of our staff, shareholders and stakeholders for their contribution towards helping OSPRI deliver its core programmes.

Barry Harris
Chairman

Michelle Edge
Chief Executive

STAKEHOLDERS' COUNCIL REPORT

Dan Coup
Interim Chairman, Stakeholders' Council

The year ending June 2018 has seen the initiation and/or completion of key pieces of work that will be implemented over the next year and form the basis of new ways of OSPRI working in the future, both at the operational and governance levels. In the latter area, this is as a result of the completed shareholder-led review of OSPRI's governance framework. The important operational projects included the conclusion of the NAIT review, and commencement of the preparatory projects for the introduction of risk-based testing.

A number of personnel changes have also occurred during the past year. The Stakeholders' Council thanks Anders Crofoot, who stepped down as Chair of the Council in December 2017, for leading the Council since the formation of OSPRI. New members Miles Anderson and Grant Bryden represent Federated Farmers Meat & Wool and MPI respectively. The Council also thanks Jeff Grant, OSPRI Board Chair, who resigned in late June 2018, for his contribution to the company and his engagement with the Council during his tenure, and wishes him well in his new role.

The recommendations arising out of the company's governance framework review include several that will reinvigorate the Council by clarifying its purpose and focus, and standardising its role in the director appointment process. Progress is underway on the various actions arising from the review; this includes appointing a professional independent Chair to lead the Council's annual work programme. Necessary changes to the company's constitution and the Council's Rules are expected to be finalised at this year's Annual General Meeting.

The core change for the Council is a redirection of its functions and powers towards a primary role relating to monitoring and influencing the performance of OSPRI.

In future, the Council will have its key relationship at Board level with a focus on understanding and providing feedback on the Board's strategy, reviewing performance against the strategy, and reviewing and assisting the Board's effectiveness.

The Council has proposed that two of its four meetings per year coincide with OSPRI Board meeting dates to enable joint sessions. This strategic-level engagement began in April. Over the upcoming year, the Council is keen to understand the Board's overall strategic direction for the company and ensure this is able to be communicated effectively, as well as advocating for a greater focus on stakeholder relationships and engagement, and reporting mechanisms.

As noted, the NAIT review report was released during the year; a number of Council members were involved with the review committees. The Council is pleased to see that OSPRI and MPI have agreed a joint compliance approach, which is in progress. A number of operational-level changes resulting from the report recommendations are also to be introduced in the upcoming year. Changes to deer testing occurred recently, and the Council also notes there is further preparatory work in progress that will allow introduction of the risk based testing pilot to the deer industry in the next financial year.

SHC expenditure for the 2017-2018 year of $5,093 was for meeting-related costs.

The Council looks forward to continuing the implementation of the governance review recommendations in the 2018-19 year, and in particular to strengthening its relationship with the OSPRI Board for the benefit of stakeholders.

Dan Coup
Interim Chairman, Stakeholders' Council

ABOUT OSPRI

OSPRI is sole shareholder of TBfree NZ Ltd and NAIT Ltd, which are the statutory management agencies for the TBfree and NAIT programmes respectively. The TB programme is directed at the eradication of TB from New Zealand. NAIT is the national livestock traceability programme, capable of tracing livestock movements for the purposes of managing animal health, disease outbreaks, food safety or biosecurity risks.

TBfree

THE TBFREE PROGRAMME

Investment associated with the TBfree programme is directly channelled into major areas of service delivery as follows:

- **Disease management**
  Key activities include livestock TB disease surveillance through slaughter premises post mortem monitoring and TB testing. There is also provision of diagnostic services for cattle and deer herds, case management of herds diagnosed with TB infection, and monitoring and controlling the livestock movement to prevent disease transmission through movement of potentially infected livestock. There is also analysis and reporting of results and, where necessary, slaughter of livestock with compensation payable to the owner.
- **Pest management**
  Eradication of TB in wildlife is delivered through an intensive, targeted possum control programme, wildlife surveillance, field operations and monitoring, post-mortem analysis and diagnostics, and industry and community engagement and liaison.
- **Research and programme development**
  Fundamental and applied research is carried out to support the control and eradication of TB in wildlife and livestock, animal health and disease analysis, testing methodologies and diagnostics, with related activities to provide a scientific basis for programme design.
- **Corporate and Contact Centre support**
  OSPRI uses a range of mechanisms to ensure that farmers, stakeholders and other affected parties are well-informed about the TBfree programme, activities and operations.

The amended TBfree programme, developed through joint industry, scientific and government consultation during 2015, aims to achieve:

- Biological eradication of TB from New Zealand by 2055;
- TB freedom[1] in livestock by 2026; and,
- TB freedom[1] in possums by 2040.

The above targets are to be achieved whilst ensuring the annual infected herd period prevalence stays at or below 0.2% throughout the term of the plan.

The new TB Plan provides a range of advantages, including:

- A clear goal for full eradication of TB from New Zealand;
- A reduced level of expenditure – ($60m average, from $80m) due to new approaches to testing, wild animal control; and
- Streamlined funding arrangements that give greater funding security and greater flexibility.

Efficient delivery of the TB Plan will be achieved through more targeted risk-based approaches to livestock TB disease management and pest control, which will leverage improved monitoring, data availability and research outcomes.

1 Defined as statistical confidence that the disease is no longer present in the animal population


DO NOT REMOVE
NAIT

THE NAIT PROGRAMME

NAIT Ltd was established through a partnership between the beef, deer and dairy industries and the Ministry for Primary Industries (MPI). NAIT Ltd is a subsidiary of OSPRI New Zealand Ltd. The importance of traceability across the supply chain is becoming recognised, where traceability provides validation for food safety claims and standards, the ability to conduct trace back and recall in the event of a food safety or disease risk or outbreak, and the ability to demonstrate that biosecurity procedures and practices are effective in managing disease risks for any livestock and food products entering the market for human consumption.

The NAIT system was established to implement an effective lifetime traceability system for its livestock and animal products (currently cattle and deer) and the system provides the capacity to:

- link people, property and livestock;
- record and demonstrate lifetime livestock and livestock product traceability; and
- contribute to New Zealand's ability to prepare for and respond to animal health, food safety and biosecurity incursions.

There are three main drivers for the NAIT system:

- **Biosecurity**
  The implementation of an effective livestock traceability system enables New Zealand to respond to a biosecurity incursion or exotic disease event by tracing suspect or infected livestock and locating, prioritising and treating suspect or infected premises or animals.
- **Food safety**
  New Zealand must be able to provide assurance to local and overseas markets about food safety standards and product integrity through traceability of livestock and the associated property of origin of those products.
- **Market assurance and access**
  New Zealand needs to provide assurance to both local and overseas markets and customers of the attributes associated with livestock product integrity and wholesomeness, for which traceability is a clear enabling requirement.

OSPRI delivers the NAIT programme to achieve these objectives through a range of activities as prescribed in the NAIT Act (2012) including:

- overseeing policy, standards development, licence provision and accreditation;
- supporting NAIT animal registration, data entry, movement/transaction recording;
- providing government, industry and customers with reporting, alongside undertaking general monitoring and evaluation activities;
- providing and maintaining a secure, current and credible database;
- providing extension, field and service support for implementation, policy and system issues;
- communicating NAIT requirements and promoting programme uptake and adoption;
- providing resource and input to livestock trace-back exercises facilitated by government; and
- providing input to, and integration with, the whole of chain livestock traceability system for domestic and export products.

GOVERNANCE

OSPRI New Zealand Ltd (OSPRI) as a parent company was incorporated on 6 June 2013 by the acquisition of Animal Health Board Incorporated (now TBfree Limited) and National Animal Identification and Tracing Limited (NAIT).

OSPRI recognises the value of strong corporate governance. As a company responsible for the investment of funds by its shareholders and the Crown, OSPRI must meet and demonstrate sound governance processes to shareholders and stakeholders. The OSPRI Board oversees company strategy, financial performance, risk management, internal governance and management process and overall company delivery in accordance with legislative and commercial requirements. Committees of the Board include the Audit and Risk Committee and Human Resources Committee. The NAIT Data Access Panel is a separate and independent governance body that oversees data access in accordance with the provisions of the NAIT Act.

OSPRI's shareholders are DairyNZ Limited, Beef + Lamb New Zealand Limited and Deer Industry New Zealand Limited. OSPRI has a Stakeholder Council comprising representatives of the shareholders, Ministry for Primary Industries and seven other interested stakeholder groups: New Zealand Deer Farmers Association, Local Government New Zealand, New Zealand Stock and Station Agents Association, Federated Farmers Dairy, Federated Farmers Meat and Wool, Meat Industry Association New Zealand and the Dairy Companies Association of New Zealand.

STAKEHOLDER ENGAGEMENT

OSPRI is committed to working with its stakeholders to achieve efficient application of agency and levy funds through its programmes and service delivery.

This is enhanced by the focus on increasing co-investment and collaboration in areas of traceability, animal health, and biosecurity and pest management.

OSPRI regularly engages with a range of agencies, departments, associations and groups to implement its programmes and to ensure the priorities and expectations of government, industry and the community are met.

These collaborations ensure that industry and government funding of OSPRI programmes is appropriately and effectively invested to deliver maximum impact.

TABLE 1: PROVIDES AN OUTLINE OF OSPRI'S GOVERNANCE FRAMEWORK

GOVERNANCE ELEMENT	REQUIREMENT TO BE ADDRESSED BY OSPRI GROUP
Enabling legislation	TBfree New Zealand Limited (TBfree) manages the National Pest Management Plan (NPMP) for bovine tuberculosis (TB) as Management Agency, in accordance with the provisions of the Biosecurity Act 1993 and the Biosecurity (National Bovine Tuberculosis Pest Management Plan) Order 1998. NAIT Limited is responsible for implementing New Zealand's National Animal Identification and Tracing (NAIT) programme and operates under the National Animal Identification and Tracing Act 2012 as the NAIT Organisation.
Governance legislation	OSPRI, TBfree and NAIT are provided for with separate constitutional requirements and recognised under the Companies Act 1993 and the Charities Act 2005. The Shareholders engage with OSPRI through a formal Shareholder Agreement and through the constitutional consultation mechanism of the Stakeholder Council which operates in accordance with agreed stated rules.
Financial Control	The OSPRI Group and subsidiary company maintains accounts and records of transactions and affairs in accordance with New Zealand's accepted accounting practices for large companies (NZGAAP). The OSPRI Group of companies is a not-for-profit public entity.
Audit Process	Independent internal and external audits are applied to OSPRI and its subsidiaries to review and assess financials, risk, fraud, quality of internal financial and governance processes and policies.
Fraud and Risk Management	OSPRI's fraud and risk management framework through the company's Audit and Risk Committee includes processes for project, programme and portfolio level risk management, general compliance and operational risk management and financial risk management.
Monitoring performance	OSPRI monitors, measures and evaluates its performance to continually improve its effectiveness and efficiency. These measures are reported to Stakeholders on a regular basis.
Reporting to Stakeholders	OSPRI reports to Stakeholders on an annual and quarterly basis and more regularly through technical advisory groups and the regional TBfree and national OSPRI committees. Specific reports to shareholders and the Ministry for Primary Industries are made in accordance with OSPRI's regulatory requirements and deliverables.
Planning and reporting	OSPRI's corporate planning and reporting approach includes an Annual Operating Plan that outlines the annual budget, workplans, resources and research requirements for the year. This provides the opportunity for the Stakeholder Council and shareholders to respond to changing strategic requirements and external drivers for the company. An Annual Report provides information on the projects and activities of the OSPRI Group in relation to the goals set in the Annual Operational Plan for a given financial year.

A range of key consultation processes support OSPRI and provide advice on its investment and operational activities and services. These include, but are not restricted to, regular engagement with:

- OSPRI investors and shareholders (DairyNZ, Beef + Lamb NZ, Deer Industry NZ, the live animal export industry and the Ministry for Primary Industries) in six monthly and annual planning and budget discussions. OSPRI reports quarterly (including an annual report) to TB plan investors on implementation progress against the Plan objectives.
- Ministry for Primary Industries (MPI) to ensure that OSPRI continues to demonstrate effective management of the statutory TBfree and NAIT programmes and that appropriate policy and programme activities are undertaken in a timely manner. OSPRI meets with MPI to discuss and agree on programme reporting requirements, strategic planning and to proactively share information.
- The OSPRI Stakeholder Council to gain agreement on investment focus and the key activities concerning the development and delivery of the TBfree and NAIT programmes. The Stakeholder Council also provides advice to support the overall governance and service delivery of OSPRI.
- The TBfree and OSPRI Committees for the purpose of outreach and extension, and to ensure that advice is obtained at local level on behalf of the farming community.
- The Department of Conservation (DOC) for purposes of supporting the broader objectives of government in terms of the Predator Free initiative and their objectives in large scale pest management activities as well as providing opportunity through regular communication for economies of scale through our operations.
- Local Government / regional councils to ensure that local agencies are informed of OSPRI operations and potential opportunities for collaboration and joint communication with local landowners, farmers and the community can be jointly undertaken.

PLANNING FOR THE FUTURE

OSPRI undertakes regular evaluations of its programmes and outputs, including independent reviews. Building on the reviews of 2017, which involved an evaluation of our health and safety programme, service procurement approach and information technology security, OSPRI has now established a formalised internal assurance programme. The focus of this programme will be rotational evaluation of core business areas for purposes of identifying business improvement opportunities, including, but not restricted to, finance, procurement, contract management, health and safety, information technology security and business continuity, project management and governance.

CONTINUOUS BUSINESS IMPROVEMENT

OSPRI has embarked on a reorganisation of its functions and operations to support the new long term TB plan and the requirements for delivery of NAIT. This involved the company re-structure of 2016 and 2017, together with enhancements of internal business processes, procedures and professional development.

OSPRI aims to ensure greater efficiency in its business practices, alongside long-term planning and investment towards the defined strategic goals. OSPRI has sought to provide greater transparency in its overall service delivery approach, and has formalised engagement processes and reporting functions to address the current and emerging needs of a number of stakeholders and interested groups.

KEY HIGHLIGHTS FROM 2017/18

3,799,934
ANIMALS REGISTERED IN NAIT

91,443
FARMERS REGISTERED WITH NAIT

8,506,465
MOVEMENTS RECORDED IN NAIT

32 TB INFECTED HERDS AS AT END OF JUNE 2018

DISEASE CONTROL AREA CHANGES RESULTED IN MORE THAN
31,000
FEWER LIVESTOCK TB TESTS FOR FARMERS

4.05 MILLION HECTARES
COVERED BY WILDLIFE CONTROL AND SURVEY ACTIVITIES

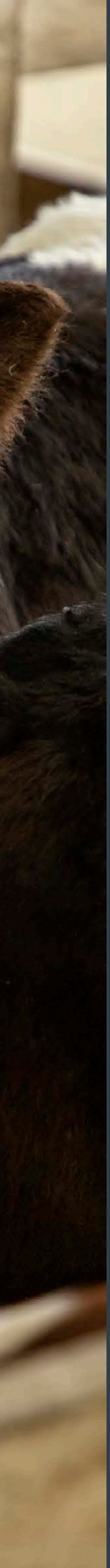
ERADICATED TB FROM POSSUMS ACROSS 190,000 HA
OF VECTOR RISK AREA

3.15 MILLION
LIVESTOCK TB TESTS WERE CARRIED OUT

200 PEST CONTROL CONTRACTORS SPENT ALMOST
230,000 HOURS CHECKING MORE THAN
180,000 TRAPS AND INSPECTING
55,000 DETECTION DEVICES

CONTACT CENTRE – **68,800** INBOUND CALLS – **50,880** OUTBOUND CALLS AND RESPONDED TO OVER **25,000** EMAILS

TB INFECTED HERD PERIOD PREVALENCE OF 0.1 AS AT END OF JUNE



OSPRI PROGRAMME UPDATES

OSPRI's core programmes, NAIT and TBfree underpin the Company's mission statement by delivering livestock traceability, TB disease management and wildlife pest management for enhanced biosecurity and biodiversity outcomes.

THE NAIT PROGRAMME

A major focus for the NAIT programme during the 17/18 year was the finalisation of the NAIT review. NAIT was first introduced in July 2012 with a 3-year transition and implementation period that was ended in July 2015 and March 2016 for cattle and deer respectively. The NAIT review began in August 2016 and was aimed at reviewing the progress of the programme implementation and considering any opportunities to improve user adoption and delivery of the benefits anticipated in the original business case.

The outcome of the review process was the provision of a report of 38 recommendations to Government. Approximately 23 of the recommendations are considered operational and can be implemented by NAIT Limited as the management agency under the NAIT Act. The remainder of the recommendations involve regulatory amendment, which Government will design, develop, consult on and implement as Act or regulation changes.

A further focus during the year was supporting MPI (the lead agency), in the *mycoplasma bovis* response effort. This work involved developing fit for purpose biosecurity reporting used by disease analysts and epidemiologists which provided crucial data on animal location, premises location, and animal movements to enable forward and backward tracing to determine the potential spread of the disease.

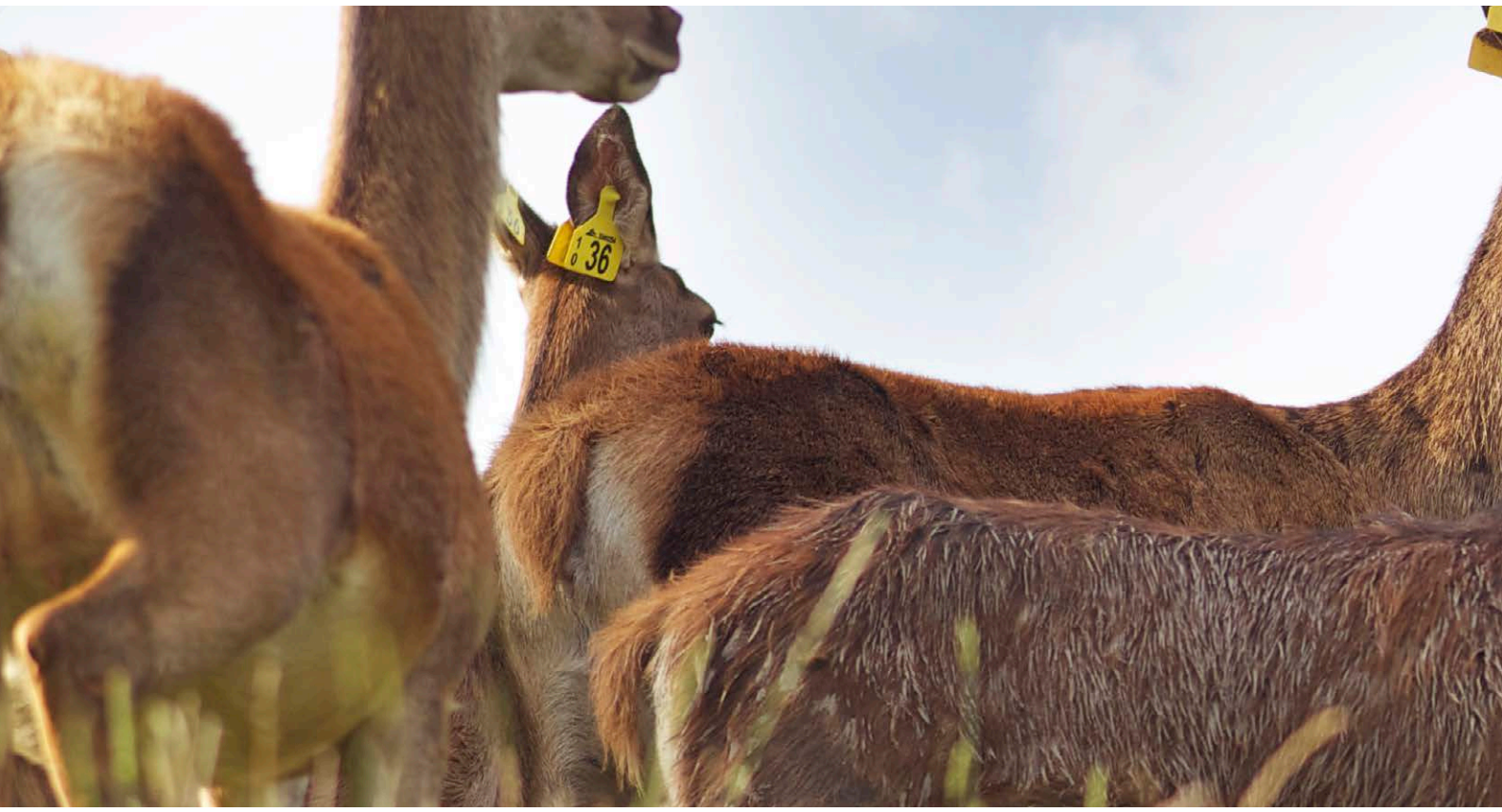
In any disease response, the ability to contact premises, identify animal's locations and movements assists decision making for disease investigation, diagnosis, testing and movement control.

NAIT Limited provided more than 5,000 reports during the course of the year and enabled direct access by investigators to customised traceability reporting during the response investigation. It became clear during the response that where users provided the required data to NAIT, tracing was smooth and easy and where users did not meet their NAIT obligations, tracing was time and effort consuming. The important role of the national traceability system's contribution to the response has been acknowledged by those involved in the day to day operation of the response effort.

Another major workstream involved the development of a joint compliance action plan between NAIT Limited and Government. The action plan confirms roles and responsibilities in accordance with the provisions of the NAIT Act, and the original intent of the NAIT business case. It reflects the VADE model (voluntary, assist, direct, enforce), an approach applied in various agreements and MOUs between Government and other legislatively appointed agencies.

It became clear that to make a difference in national compliance, a large number of observations needed to be made at a number of premises and compared with NAIT data. The resourcing required for this standing field presence of warranted inspectors would be cost prohibitive, however, can be achieved by ensuring the existing inspectorate are multi-act authorised and that NAIT is integrated with existing inspection functions and activities.

The outcome of this work is that significant economies of scale have now been achieved, with NAIT operating at the Voluntary/Assist end of the model and providing education, training materials, support with using the NAIT system and issuance of warning letters



to PICAs where deliberate repeat offenders are identified while MPI undertake field inspection and investigation alongside infringement and prosecution. By the end of the financial year, OSPRI had issued over 200 letters, with more than 20 cases being escalated to MPI, and MPI had undertaken more than 400 field inspections and investigations.

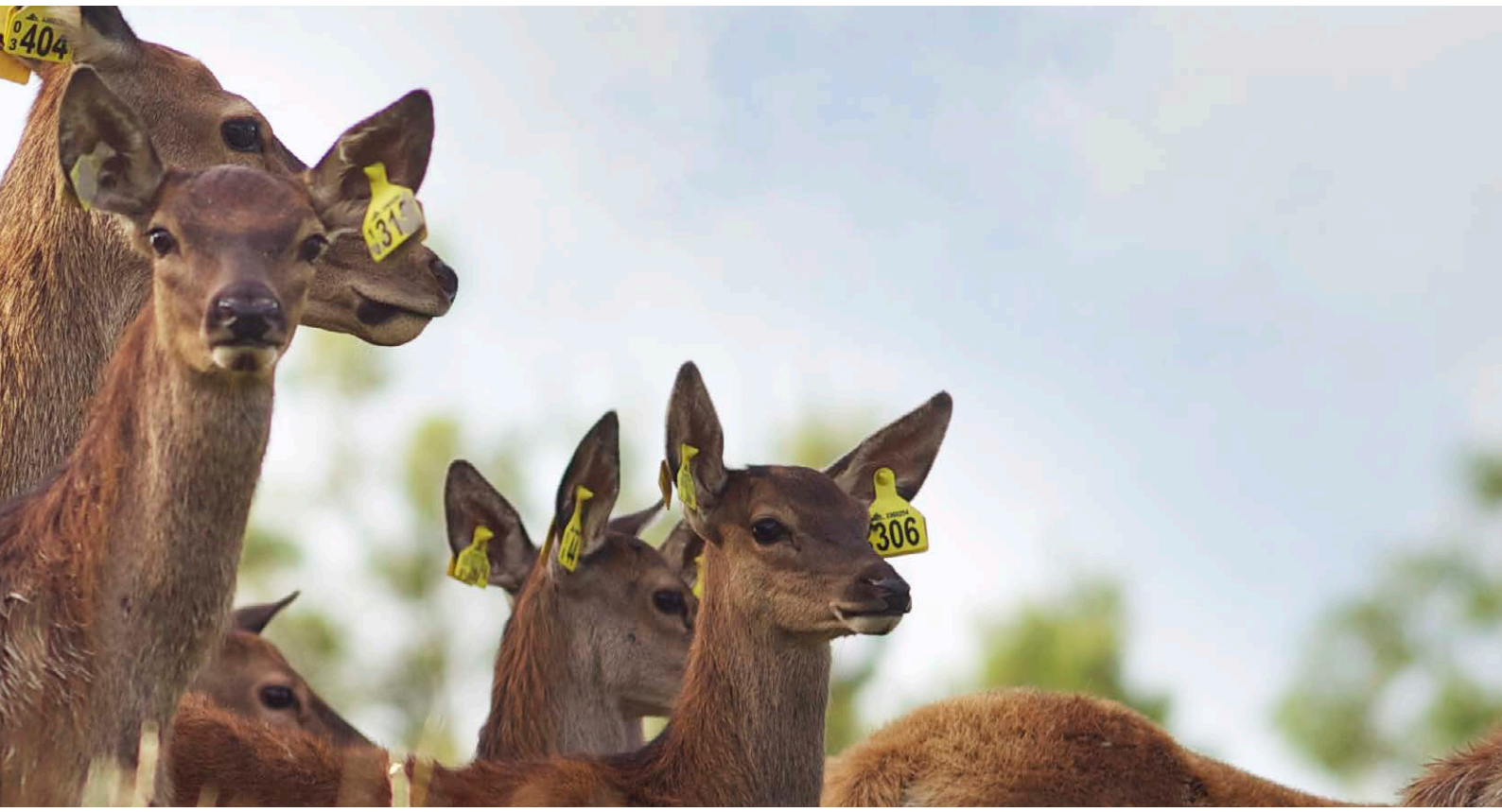
Further key NAIT programme activities during the 17/18 year included regional extension and engagement activities, in particular the development of new communication material for NAIT users. Enhancements to the NAIT system sought to address usability and performance aspects. This involved the integration of previously infected, suspected and infected TB herd information into the NAIT system, notifications to disease managers in the event of animal movements onto or off properties of interest, integration of animal attribute information for AngusPure programme participants, and the introduction of a disease case management module for utilisation of MPI in *mycoplasma bovis* response. Further work also included the development of the post-mortem data collection module in the NAIT system for TB management and re-design of the NAIT reporting platform to improver support for Government users in biosecurity and compliance.

ACTIVITIES DURING THE YEAR

During the year OSPRI has continued to work with industry and government partners and agencies to ensure awareness of the potential benefits of NAIT, with a focus on the medium-term goals of the programme. Alongside this we set out to achieve the following key goals and objectives:

- That the NAIT system is evaluated and recommendations provided to Government for continual improvement
- That the NAIT system is delivered in accordance with policy, regulatory and programme objectives
- That the NAIT system is maintained and uptake is enhanced
- That NAIT participates in livestock traceability activities underpinning disease preparedness and emergency response and recovery
- That NAIT is supported by effective engagement, extension and education activities.

The following section provides a summary of key highlights and activities undertaken throughout the year to meet these goals and objectives.



MANAGEMENT OF NAIT PROGRAMME

OSPRI delivered the implementation of the NAIT programme throughout the year with significant emphasis placed on:

- Contributing to the technical and policy papers provided by OSPRI for NAIT review committees
- Effective oversight of NAIT policies, standards development, licence provision and accreditation
- Providing technical and customer service to end users including for NAIT animal registration, premises registration and movement recording
- Providing technical and policy advice to end users and government on key policies, regulatory matters and standards applied under the auspices of the NAIT Act
- Providing regional engagement services and extension to communicate the requirements of the NAIT programme and enhance awareness
- Providing regular reporting to government for purposes of disease management and compliance
- Overseeing accreditation for various NAIT user entities and organisations
- Providing technical support for the meat processors, sale-yard operators and information provider organisations
- Reviewing and approving device accreditation and provisional accreditation alongside evaluating field trial performance of devices under accreditation application processes
- Ensuring the maintenance of a secure database and a reliable information system
- Communicating NAIT requirements and encouraging programme uptake and adherence
- Providing reporting and analytical support for livestock trace-back facilitated by government including disease response efforts.

The above series of activities were undertaken throughout the year as part of the overall NAIT programme delivery and NAIT Limited role as the management agency for the programme.

THE NAIT REVIEW

The NAIT review began in August 2016 and continued throughout 2017. The review was aimed at evaluating progress to date and identifying opportunities to improve the NAIT programme delivery of the benefits anticipated in the original business case. The review report was made available in April 2018. The principal output from the review was a set of recommendations on options for improvements to NAIT to ensure the intended scheme benefits can be realised. The full NAIT review report is available on the OSPRI website.

The NAIT review was undertaken by a Technical User Committee that was overseen by a Steering Committee chaired by Sir Henry van der Heyden. The Steering Committee comprised industry representatives, key user groups and government and was responsible to oversee the NAIT review and prepare the final recommendations to be presented to industry and government.

The NAIT review Technical User Committee was established to assess and provide advice to the Steering Committee on technical material, policy and commissioned research. Membership of the Technical User Committee included two Steering Committee representatives, technical and policy specialists and users of the NAIT system (e.g. production, processing, saleyard, transport, market access, traceability systems, etc).

The Technical User Committee used a range of reference material in addition to members' own knowledge and experience to inform their discussions and recommendations. OSPRI provided a series of reports, statistical analysis and written papers to support the review process and the Technical User group and Steering Committee also commissioned several projects to examine technical matters. Additionally, feedback on a range of specific usability issues gathered by OSPRI through surveys, direct farmer engagements, training events and other forums, was available.

The review discussions reinforced that livestock traceability is important for purposes of traceback in the event of a food safety or animal disease incident. However, was clear that incentives and drivers for NAIT are not yet widely understood or comprehensively implemented in terms of the regulation and related legislation and there is a need for increased communication and education in this area as well as system and process improvements.

The topics discussed in the NAIT review were wide-ranging, including: animal location and movement recording, definition and assignment of NAIT number, tag readability and retention, tag replacement, tag visual coding and RFID sequencing, new and emerging tag technologies, roles and responsibilities of user groups under the NAIT legislation and standards, NAIT system enhancements, user experiences, applicability of current exemptions, compliance, education and gaps and needs in terms of the existing regulatory provisions. The recommendations resulting from the committees' discussions focus predominately on:

- retaining accurate animal location and tracing information while making it easier for NAIT system users to fulfil their obligations;
- improving design aspects of NAIT; and
- improving farmer and industry compliance with NAIT obligations.

The recommendations can be grouped into five interrelated elements, which together will enable NAIT to achieve its purpose:

- The first theme centres on individually identifiable locations, which includes recommendations on how NAIT location information is registered and maintained and the arrangements in place to ensure that locations are captured, recorded and verified for effective traceback of livestock;
- The second theme area focusses on individually identifiable animals, where recommendations relate to tag readability, visual coding, and how retention and replacement tagging are considered in context of current practice expectations, legislative requirements and emerging technologies;
- The third theme area addresses the roles and responsibilities associated with the various user groups in the programme and their required undertakings for an effective NAIT function in accordance with the legislation and its underpinning standards;
- The fourth theme area is about ensuring the integrity of information recorded in NAIT, which will focus on compliance and ensuring that the participants in the NAIT system adhere to and fulfil their obligations; and
- The fifth theme area looks at how NAIT is used for traceability purposes and how improvements can be made that will enable NAIT users, in particular farmers in remote locations, to more easily access the system and record information.

Giving effect to the recommendations from the review will involve a mixture of legislative, regulatory and operational changes.

Some recommendations will require changes to the NAIT Act and regulations and these will be considered and implemented by Government. These changes will include user consultation if required and determined by Government.

Potential regulatory changes in the review recommendations include matters such as:

- The assignment of NAIT number to premises
- Registration of other animals (other than cattle or deer) held at premises
- Changes to the sender movement declaration by introducing consignment movement declaration
- Changes to NAIT tag distribution mechanisms
- Licensing arrangements and related sanctions
- Data access changes
- Impractical to Tag application and exemptions.

Some recommendations that are operational can be implemented by OSPRI as the management agent for the NAIT programme. These changes will be sequenced by NAIT Limited during the 2018/2019 year, with the majority proposed to be completed in the first 6-8 months.

Priority was assigned to the operational recommendations and several were completed by the end of the financial year, while others remain underway.

Activities completed included the revision of the device accreditation standard, which will be consulted on during the 2018/2019 year. Additionally, work commenced on the implementation of system and operational changes reflected in the review recommendations, including:

- Assignment of the NAIT number to a particular premise
- Use of LINZ as the source of farm boundary information in NAIT
- The verification of the 10k rule as described under the Act
- Declaration of other livestock species in the NAIT location (voluntary)
- The development of tag replacement guidelines and best practice information
- The development of extension and communication material relating to tagging, tag replacement, scanning, reporting tag loss and best practice information for the range of NAIT users
- The development of and planning the consultations for the revised animal identification device, accredited entity, information provider, identification system and farm management application standards.

Implementation of the operational recommendations of the NAIT review will continue during the 18/19 financial year, including engagement with MPI on the proposed amendments to the NAIT Act and regulations.

NAIT SYSTEM ENHANCMENTS

A range of enhancements were made to the NAIT system throughout the year, principally in the following areas:

- Ongoing improvement of biosecurity reporting for purposes of supporting Government in their lead role for the *mycoplasma bovis* response
- Compliance reporting for purposes of enabling authorised and warranted officers to access and enquire NAIT accounts at the point of inspection and investigation
- Changes to standard operating procedures for various implementation processes such as tag replacement, animal registration and location registration
- The introduction of a land parcel verification platform for location registration to ensure premises being registered are issued individual NAIT numbers in accordance with the NAIT Act provision relating to contiguous and non-contiguous properties that are not located within a 10km radius requiring unique NAIT number identifiers
- The integration of previously infected, suspected and infected TB herd information with NAIT system for TB management purposes
- Notification of disease managers in the event of any animal movements onto or off the properties of interest for purposes of TB management
- Development of the integrated NAIT re-registration form which includes TB registration and providing this in electronic format for PICA registration
- Development of the system disease module for surveillance to support MPI in the *mycoplasma bovis* response management
- Development of the post-mortem interface with meat processors for carcase disposition data to be uploaded and captured within NAIT against the RFID uploads already provided by processors. This interface will also allow reporting and surveillance for TB purposes for animals and premises and is a pre-curser project to the introduction of risk based testing
- The introduction of deer industry date of birth automation in the NAIT system to support international traceability requirements (Cervena)
- The introduction of the ability to capture animal attributes for AngusPure participants for purposes of product differentiation as part of their food safety and product integrity standards.

CHANGES TO SUPPORT DISEASE RESPONSE TRACEABILITY

To support the continual enhancement of NAIT as the national traceability system and to assist with disease trace back where required, NAIT Limited introduced a new requirement for farmers when moving their herd to a new location. It is now not allowed to move a NAIT number with the herd to another location and the NAIT number is now fixed to a particular premises. This change was initiated to support the traceback for mycoplasma for moving day (the term used to describe the industry practice of moving animals to new grazing locations which generally occurs between April to June).

This change has since been applied in context of the NAIT review recommendation to assign NAIT numbers to premises and ensure this remains with the property regardless of change of ownership. Instead, the person in charge of animals (PICA) must register a new NAIT number and record a movement for the animals that have moved. A departing herd manager who is the registered PICA for the herd they manage may apply to change the PICA for their NAIT number. This will allow the new PICA to continue to use the same NAIT number for an existing location if required.

COOK STRAIT NAIT COMPLIANCE OPERATION

The NAIT team has provided analysis for the MPI Cook Strait operation. Overall, only 3 of 146 consignments did not register a NAIT number, however, 91.6% of those with a NAIT number had recorded the required movements in the NAIT system. Approximately 87.7% recorded these movements within the prescribed 48 hours. It was noted that verification of individual NAIT movements would be able to be made possible by comparison of movement declarations using ASD (paper form documenting the movement declaration that is carried with the livestock consignment) since NAIT has little to no ability to confirm whether the movement recorded in the online database has occurred (on the ground), without direct field inspection at the time of the movement or by comparing to another declaration such as the ASD.

NAIT EXTENSION ACTIVITIES

OSPRI undertakes a range of targeted engagement, extension and education activities to support NAIT uptake in industry and increase awareness of the programme.

Focus will remain on developing and communicating case studies to demonstrate the value NAIT adds to animal health attributes, herd and production level performance measurement, biosecurity response and market access. OSPRI has developed its overall extension strategy and this will include a range of activities directed at implementing the NAIT programme post review. Equally, OSPRI has continued to focus its communications on NAIT programme activity, in order to continually support end users of the system and promote the role of traceability in validating food safety, product integrity and disease status in order to demonstrate to customers and importing countries that their standards are met.

OSPRI has promoted NAIT at a range of events, including Fieldays at Mystery Creek where an OSPRI 'pit stop' support stand was provided to engage farmers and assist with their understanding and application of livestock movement transactions. OSPRI staff interacted with over 2000 farmers, providing them with one-on-one advice on how to use the NAIT system and addressed a wide range of other NAIT related queries. Overall sentiment about NAIT was good at this national event with 89% of farmer views being positive (41%) or neutral (55%).

Throughout the year development of the NAIT extension pack has included:

- **BROCHURES**
  - The NAIT Programme
  - NAIT PICA Farmer Responsibilities
  - NAIT RFID Tags – Application and Replacement procedures
- **FACTSHEETS**
  - NAIT RFID Tags
  - NAIT Animal Registration
  - NAIT Animal Movements
  - NAIT Number Allocation
  - Download a NAIT Summary Report
  - NAIT Accredited Entities Sale Yard Responsibilities
  - NAIT Accredited Entities – Meat Processor Responsibilities
  - NAIT Accredited Entities – Information Provider Responsibilities
  - How to Access NAIT Data
- **GUIDES**
  - NAIT Online system quick user guide.

THE TBFREE PROGRAMME

OBJECTIVES OF THE TBFREE PROGRAMME

The TBfree programme aims to eradicate bovine TB from New Zealand, by achieving:

- TB freedom from cattle and deer herds by 2026
- TB freedom from possums by 2040
- Biological eradication by 2055.

The other objective of the plan is to ensure the maintenance of annual infected herd period prevalence below 0.2% for the term of the plan.

SUMMARY OF PROGRESS

In the 2017/2018 year the key targets, as specified in the National Operating Plan, covered the following:

- Confirm TB freedom by at least 460,000 hectares
- Reduced infected herd numbers to 29
- Maintain period prevalence percentage below 0.2.

The following progress was made as at 30 June 2018:

- Freedom of TB was declared from 423,000 hectares of land
- Infected herd levels at 32
- Annual Infected Herd period prevalence was at 0.1.

The following graphs demonstrate progress of the TB programme through various management plans since 2003.

FIGURE 1: NUMBER OF INFECTED CATTLE AND DEER HERDS AT 30 JUNE

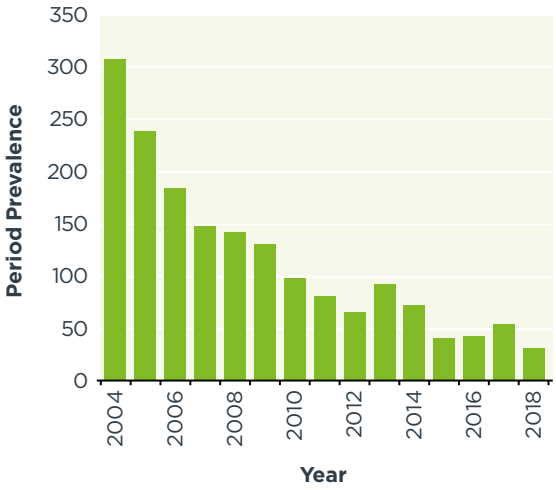
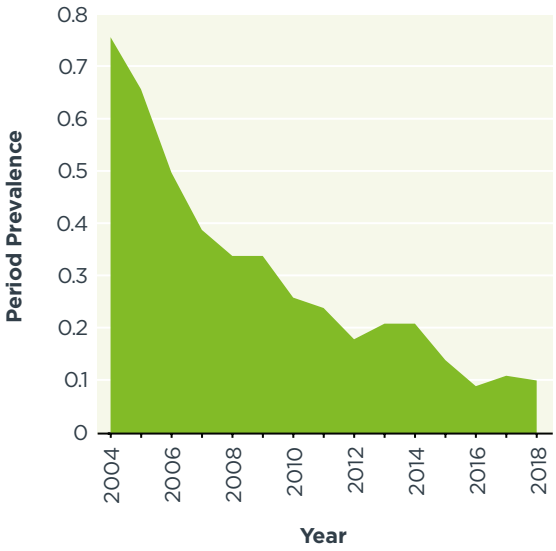


FIGURE 2: ANNUAL INFECTED HERD PERIOD PREVALENCE (CATTLE AND DEER)



REGIONAL OVERVIEW

NORTH ISLAND

The North Island started the 2017/18 year with 11 infected herds and ended the year with two infected herds. Both of these herds were in Waikato (two dairy herds).

There have been no findings of established possum infection outside of TB Vector Risk Areas during 2017/18.

The VRA status of 165,723 hectares was revoked through the proof of freedom process during 2017/18.

NORTHERN SOUTH ISLAND

The Northern South Island started the 2017/18 year with 34 infected herds and ended the year with 24. Of these herds, 19 were on the West Coast (15 dairy herds, two beef breeding herds, one beef dry herd and one deer game estate), three were in Canterbury (two dairy herds and one beef breeding herd) and two were in Marlborough (both beef breeding).

There have been no findings of established possum infection outside of TB VRAs during 2017/18.

There were no VRA revocations during 2017/18.

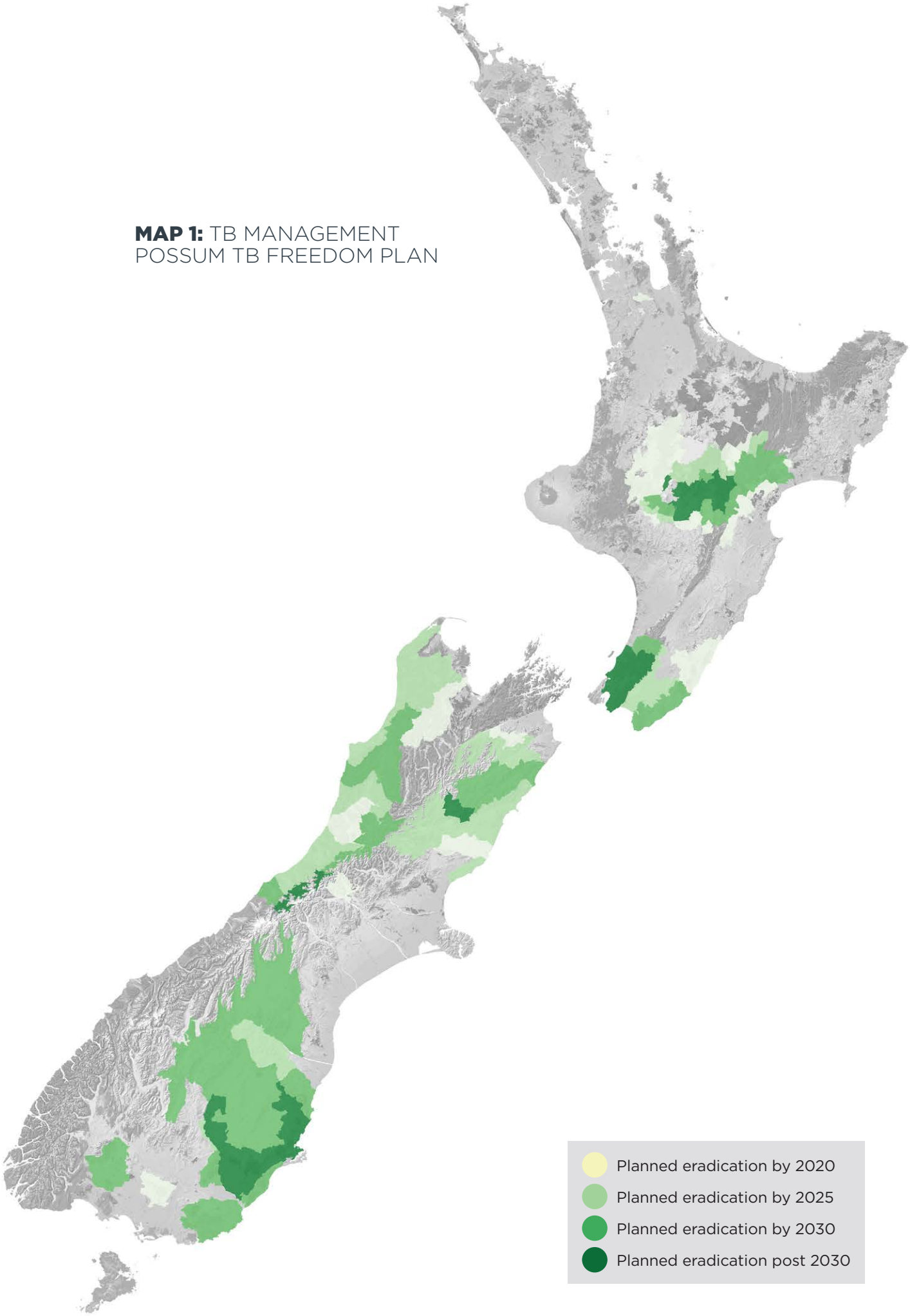
SOUTHERN SOUTH ISLAND

The Southern South Island started the 2017/18 year with nine infected herds and ended the year with six. All of these herds were in Otago (one beef breeding herd, one beef dry herd and four deer breeding herds).

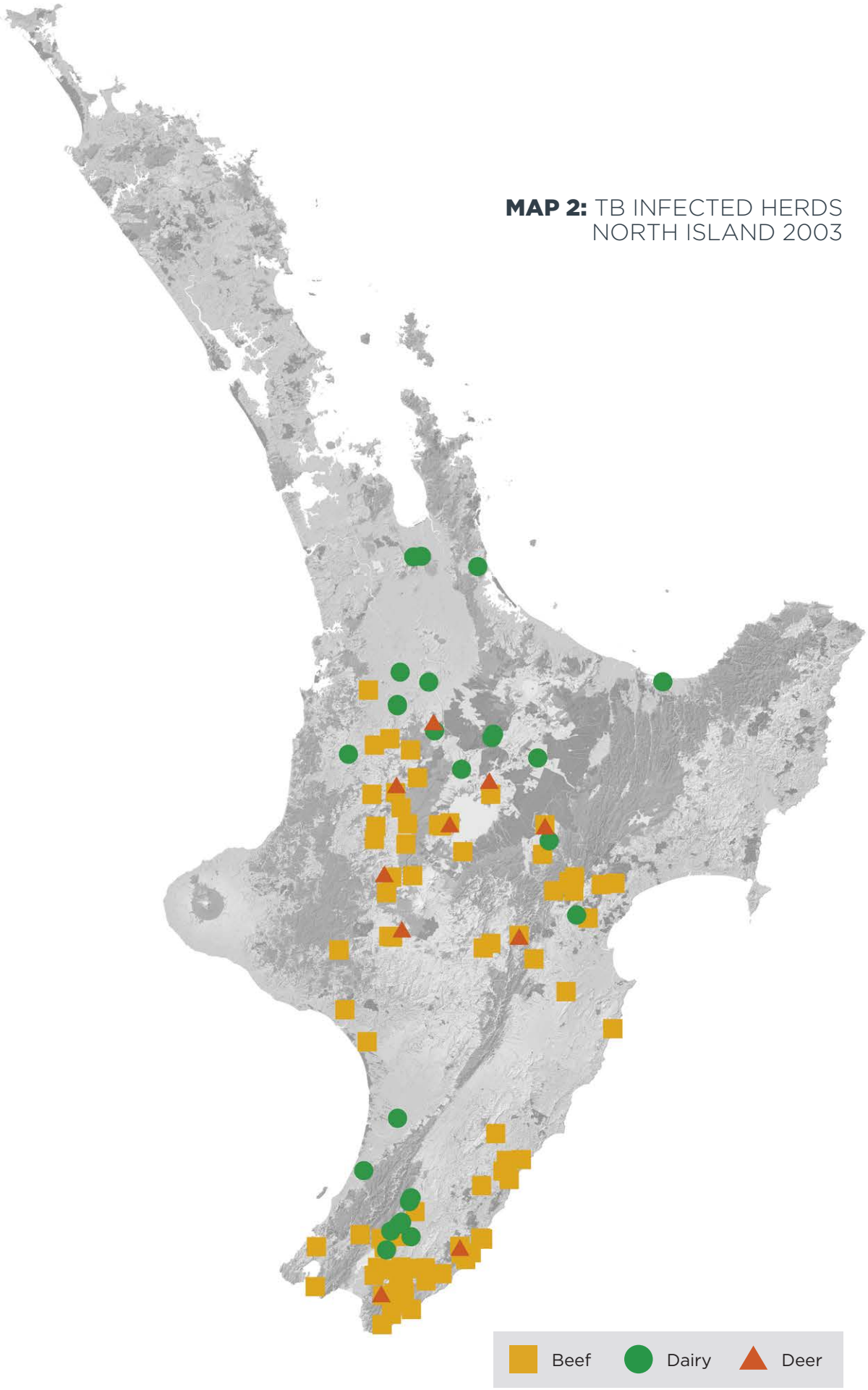
There have been no findings of established possum infection outside of TB VRAs during 2017/18.

The VRA status of 27,184 hectares was revoked through the proof of freedom process during 2017/18.

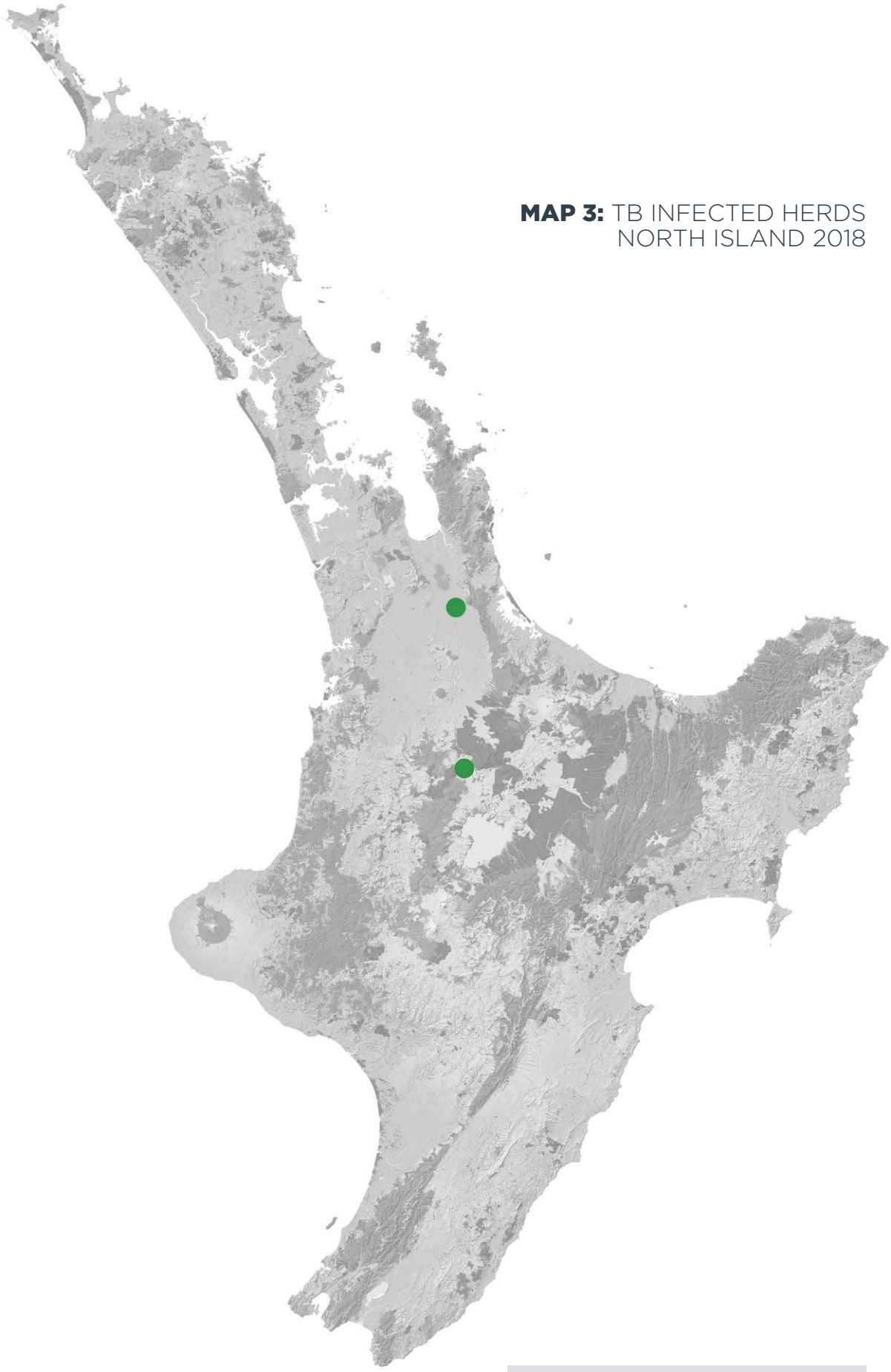
MAP 1: TB MANAGEMENT
POSSUM TB FREEDOM PLAN



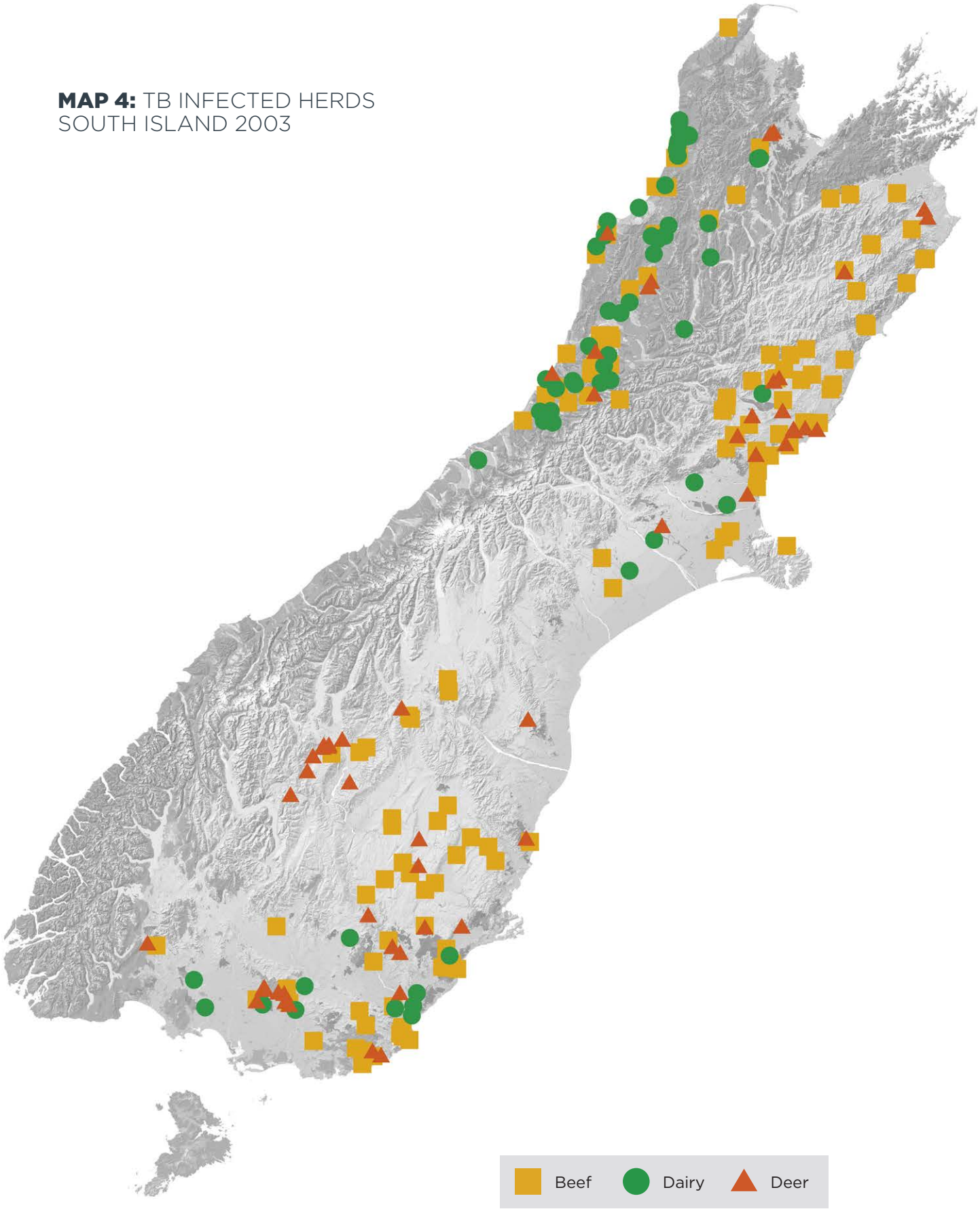
MAP 2: TB INFECTED HERDS
NORTH ISLAND 2003



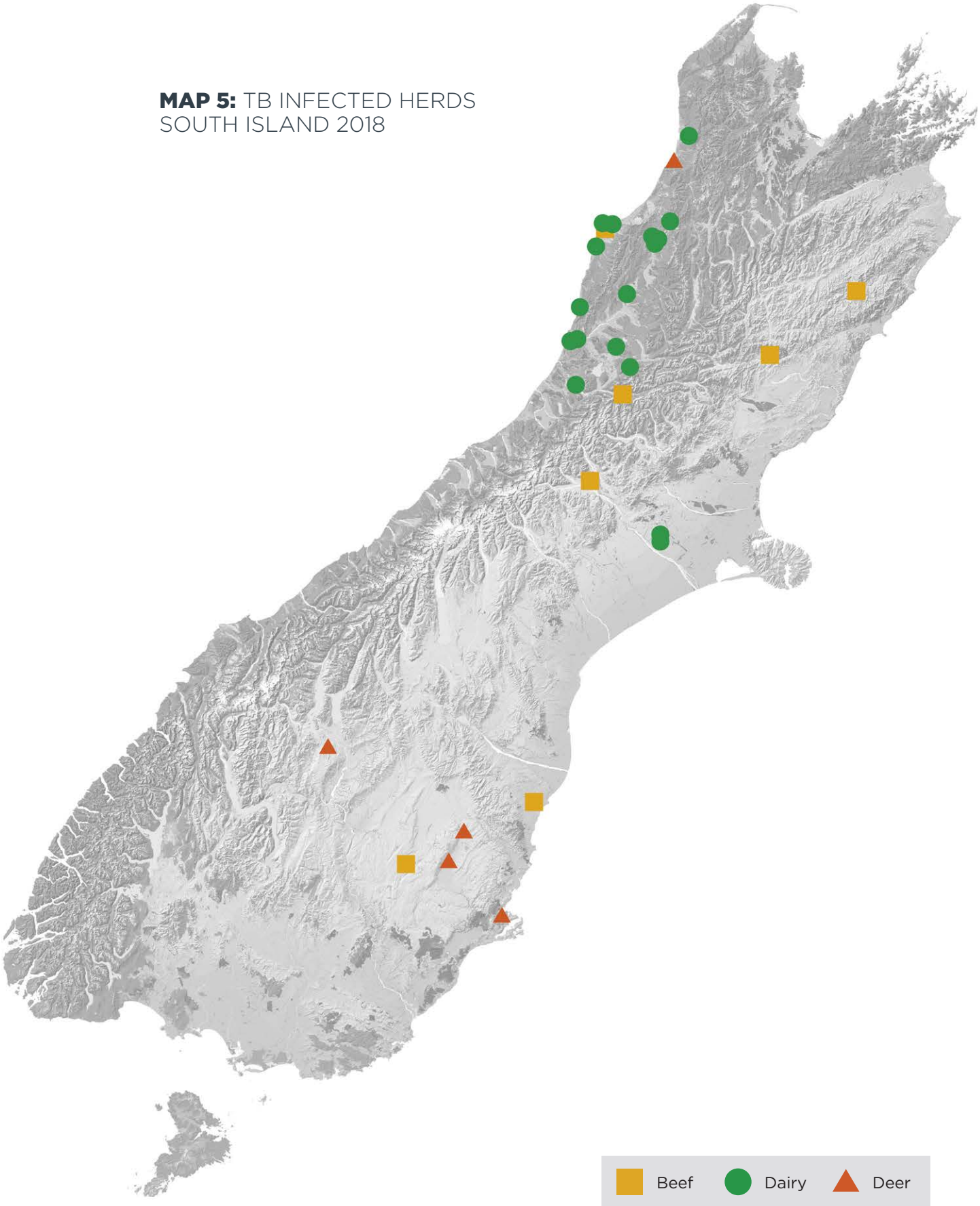
MAP 3: TB INFECTED HERDS
NORTH ISLAND 2018

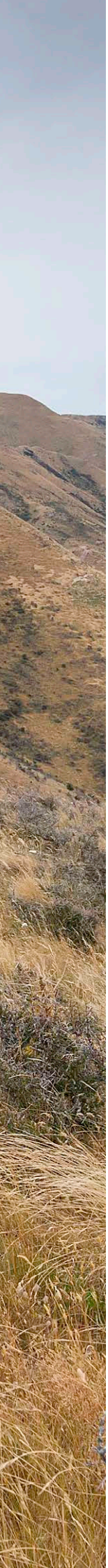


MAP 4: TB INFECTED HERDS
SOUTH ISLAND 2003



MAP 5: TB INFECTED HERDS
SOUTH ISLAND 2018





WILDLIFE CONTROL AND SURVEILLANCE OPERATIONS

Wildlife control and surveillance is by far the largest component of the TBfree programme. Control operations are designed to reduce the number of pests (defined as vectors) that carry and spread TB to farmed livestock. Research demonstrates that possums are the main wildlife vectors of TB in New Zealand and they are the primary focus of control operations.

Eradication of TB is achieved by reducing the possum density to a very low and even level (about one possum per 10 hectares) for a period of at least five years. This low density means the disease is unable to be maintained within possum populations and will subsequently disappear from both possums and eventually other wildlife.

An important aspect of the TBfree programme is surveying wildlife to detect whether TB is still present following a period of sustained possum control. This involves trapping possums and other sentinel species, such as pigs, deer and ferrets, followed by post-mortem examination and analysis. The results are used to help determine whether freedom from TB within designated areas has been achieved, or if further control work is needed. We expect to find few – if any – TB-infected possums or other wildlife in these surveys, as significant possum control effort has already been undertaken.

OVERVIEW OF 2017/18 PEST CONTROL ACTIVITIES

OSPRI, with Government and industry funding, invested $34.7 million in 2017/18 for the delivery of ground and aerial pest control operations, with approximately $23.7 million on ground control (including monitoring and surveillance) and approximately $11 million on aerial operations.

Over the course of these operations, more than 18 contracting companies spent almost 230,000 hours setting and inspecting more than 180,000 traps and 55,000 detection devices, completing field surveillance work, capturing wild pigs for monitoring and conducting aerial treatment operations. See Map 6 for more details.

WILDLIFE AND PEST SPECIES SURVEILLANCE

Data on wildlife population levels and disease status is gathered through surveillance activities that support the TB eradication programme. These data are analysed through proof of freedom models to provide statistical evidence that the control programme has successfully removed TB from the possum population.

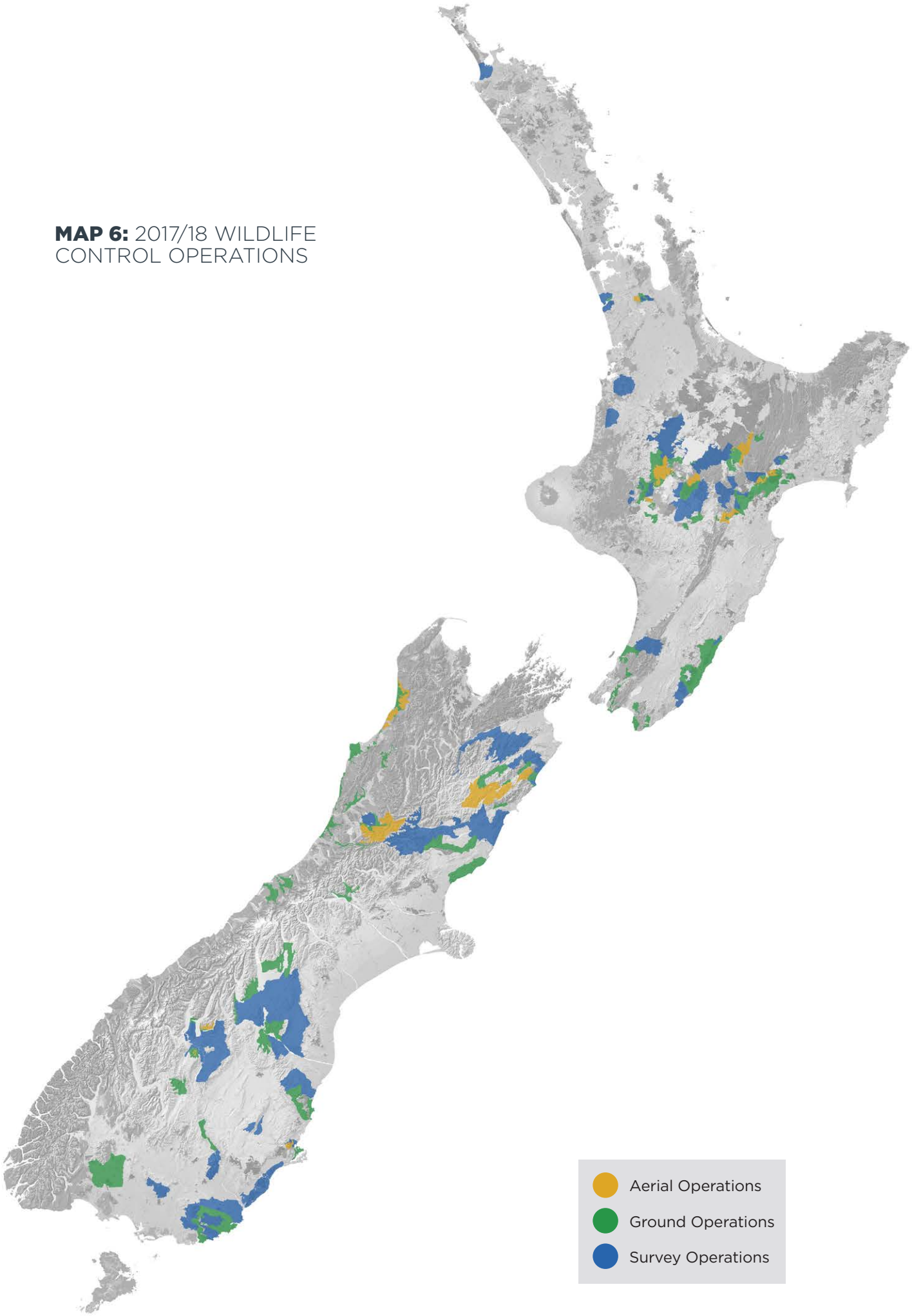
In 2017/18, all findings of TB infected wildlife were within existing Vector Risk Areas (VRAs). The locations of areas where TB animals were found (as well as areas where no TB animals were found) will enable more cost-effective targeting of further control required to eradicate TB from wildlife.

SURVEYS IN VECTOR FREE AREAS (VFAS)

To confirm that VFAs remain free of disease, wildlife surveys are undertaken to determine whether TB wild animals could be present. Surveys are also undertaken when infected herds are found in VFAs and wild animals are suspected as a potential source of infection, or conversely if there is concern that wild animals may have become infected from contact with infected cattle or deer.

A number of wild animal surveys were carried out in VFAs adjacent to VRA boundaries during 2017/18. These will continue where it is considered that there has been a risk of TB-infected wild animals moving into VFAs. Surveys to check for infected wild animals are also undertaken where there is any clustering of infected herds in a VFA.

MAP 6: 2017/18 WILDLIFE CONTROL OPERATIONS



MAP 7: VRA REDUCTIONS SINCE 2011

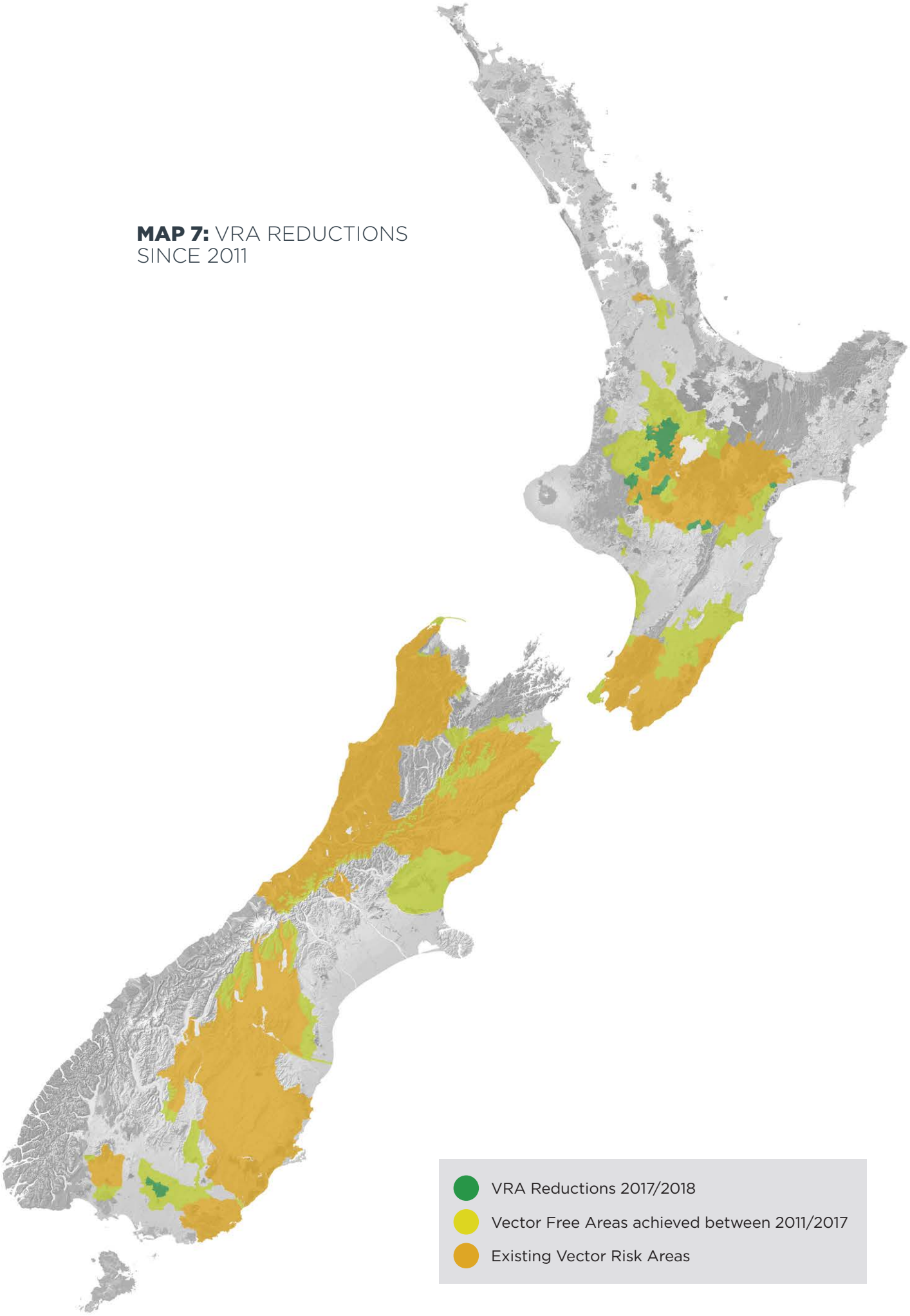


TABLE 1: NUMBER OF WILD ANIMALS IN 2017/18 SAMPLED BY SPECIES AND THE NUMBER FOUND TO BE INFECTED WITH MYCOBACTERIUM BOVIS (*M BOVIS*).

	POSSUMS	WILD PIGS	WILD DEER	FERRETS	OTHERS
Number sampled	2916	2164	251	2636	42 stoats, 8 feral cats, and 6 weasels
Number with TB	9	9	0	21	0

SURVEYS IN VECTOR RISK AREAS (VRAS)

Wildlife surveys are undertaken to gather disease and wildlife population data in order declare the VRA (or part of it) free of disease, or to delineate the extent or spread of disease to focus further possum control efforts.

Table 1 shows the results of wildlife surveys conducted during 2017/18.

DECLARING AN AREA FREE OF TB

Meeting the TB plan's objectives requires the progressive reduction in size of VRAs and the prevention of TB becoming established in VFAs.

For an area to have its VRA status revoked, a panel of reviewers must agree that the evidence indicates a very high probability of freedom from TB in the possum population. This decision is mainly based on:

- Qualitative data on the area's TB history, the effectiveness of possum control and the results of wildlife surveys
- Quantitative data that includes the outputs from a Spatial Possum Model and Bayesian-based software (Proof of Freedom utility) that indicates there is ~ 95% probability that TB has been eradicated from the possum population
- Risk assessment that evaluates the risks and potential costs of making a wrong decision.

In 2017/18, 20 reports on areas proposed for VRA revocation were reviewed by a panel of experts, including two external panellists. After considering each report, the panel agreed that there was a high probability (~0.95) TB had been eradicated from 19 areas.

The OSPRI Board of Directors subsequently approved the revocation of the VRA status for these 19 sites, totalling 192,907 ha. This included reductions in the size of VRAs in the Central North Island and Southern North Island (TBC). Since 1 July 2011, VRA status has been revoked from 2.02m hectares. As at 30 June 2018 there were 14 remaining discretely defined VRAs, with a combined area of 7.78 million ha.

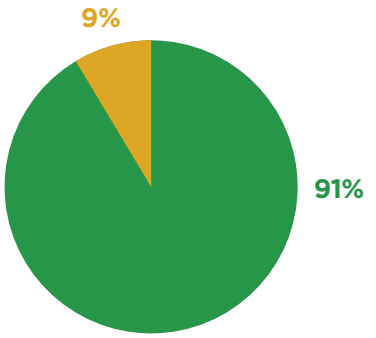


TABLE 2: NATIONAL STATS

	TOTAL HECTARES	SPEND
Ground Operations	3,698,513	$23,735,626
Aerial Operations	357,196	$11,006,648

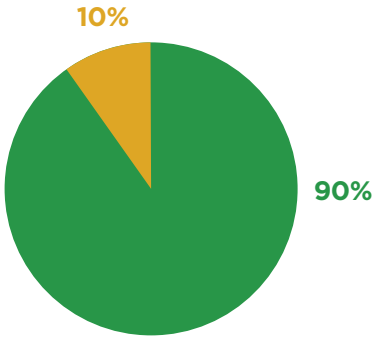


TABLE 3: NORTH ISLAND STATS

	TOTAL HECTARES	SPEND
Ground Operations	998,387	$9,296,020
Aerial Operations	109,575	$3,808,437

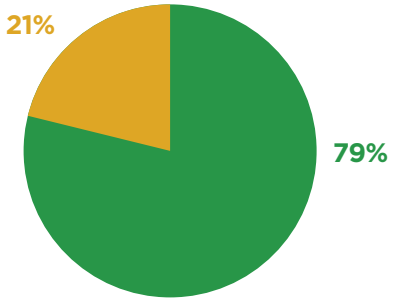


TABLE 4: NORTHERN SOUTH ISLAND

	TOTAL HECTARES	SPEND
Ground Operations	882,792	$5,334,899
Aerial Operations	233,739	$6,419,270

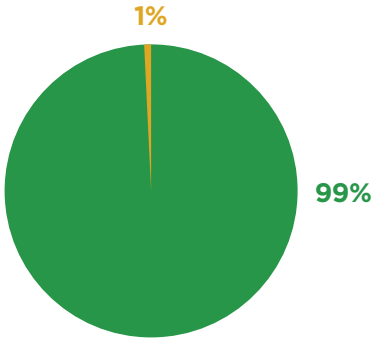


TABLE 5: SOUTHERN SOUTH ISLAND

	TOTAL HECTARES	SPEND
Ground Operations	1,817,334	$9,104,707
Aerial Operations	13,882	$778,941

Aerial Operations Ground Operations

TB DISEASE CONTROL

TB control and eradication relies on an effective disease management system that includes animal health surveillance through TB testing and slaughter plant surveillance of cattle and deer, restriction of movement of at-risk livestock either at area or herd level, and effective infected herd case management following TB diagnosis. This section of the report summarises the outputs of the TB programme in terms of livestock health.

TB SURVEILLANCE

Surveillance for TB in livestock relies on a combination of on-farm TB testing and post-mortem examination at slaughter.

If TB is diagnosed in a herd following confirmation through approved laboratory testing, a Restricted Place Notice under section 130 of the Biosecurity Act 1993 is placed on the herd. This restricts any movement of stock from the herd (except to slaughter) without a permit. This on-farm biosecurity process then limits any spread of the disease through cattle or deer movement from that point forward.

The infected herd then comes under case management by a veterinarian. The case management process involves tracing any movement into and out of the herd prior to diagnosis. Any livestock identified as having moved out of the herd will then have further TB testing undertaken in their destination herd. Livestock movement information is also used to assist in determining whether cattle or deer movement is likely to have been a contributing source for introduction of disease (see section on infected cattle herds).

DNA analysis of the TB organism (*M bovis*) is also used to help determine whether TB has been introduced by contact with wildlife or by livestock movement,or was potentially residual within the herd. An important aspect of case management is engagement with the farmer to understand the cause of the disease and the best management regime – including further TB testing and slaughter of test positives – in order to clear the herd as quickly as possible. A herd cannot be declared free of TB until it has had at least two clear whole herd tests at a minimum of six months apart.

OSPRI runs an extension programme in liaison with DairyNZ, Beef and Lamb NZ and Deer industry (DINZ) as well as Federated Farmers in order to increase farmer understanding of TB and the eradication programme. The extension programme also provides support for farmers who have TB diagnosed in their herd, to help them manage their herd through to TB freedom. Further information on OSPRI's extension programmes is provided on page 64.

INFECTED HERDS AND NATIONAL PERIOD PREVALENCE

At 30 June 2018, there were 27 infected cattle herds, compared to 49 at 30 June 2017. During the year, TB was identified in 67 cattle herds, four less than in 2016/17. For deer, the number of infected herds remained at five, with no new infected herds being identified during the year.

During the 2017/18 year, 41 cattle were found with TB as a result of TB testing, and a further 23 cattle were found with TB during routine slaughter inspection. Two deer were found with TB as a result of TB testing with none found with TB at slaughter inspection.

The annual infected herd period prevalence (for cattle and deer combined) in 2017/18 was 0.10%. This period prevalence is derived from the total number of infected herds at the start of the year, plus new infected herds identified during the year, divided by the total herds in the country, expressed as a percentage. The annual period prevalence has been less than 0.2% for the last four financial years and as such meets the World Organisation for Animal Health (OIE) standard for being classified as being officially TB free – an important international milestone.

CATTLE

At 30 June 2018, there were 27 infected cattle herds, compared to 49 herds at 30 June 2017. Of these infected herds:

- 85% were located in VRAs
- 93% were located in the South Island
- 70% were dairy herds.

The herd breakdown rate (incidence) for 2017/18 was 2.6 per 10,000 herds, and the herd clearance rate was 77%. The relatively high herd clearance rate resulted in fewer infected herds at 30 June 2018 compared with the previous year.

Source of infection for new herd TB infected cattle herds during the year is summarised by area status in Table 7.

Figure 3 shows the fall in infected herd numbers since June 2004 by vector area status (VFA, VRA). The annual number of infected herds is expected to trend down to zero over the next 10 years.

CATTLE TESTING AND REACTORS

Cattle testing data is summarised in Table 8, which compares the number of TB tests carried out on cattle and the number of reactors to tests in 2016/17 and 2017/18. In the year to 30 June 2018 3.1 million cattle were tested using the intradermal caudal-fold tuberculin[2] test (primary skin test). This is approximately 190,000 less than the number of cattle tested in the previous year.

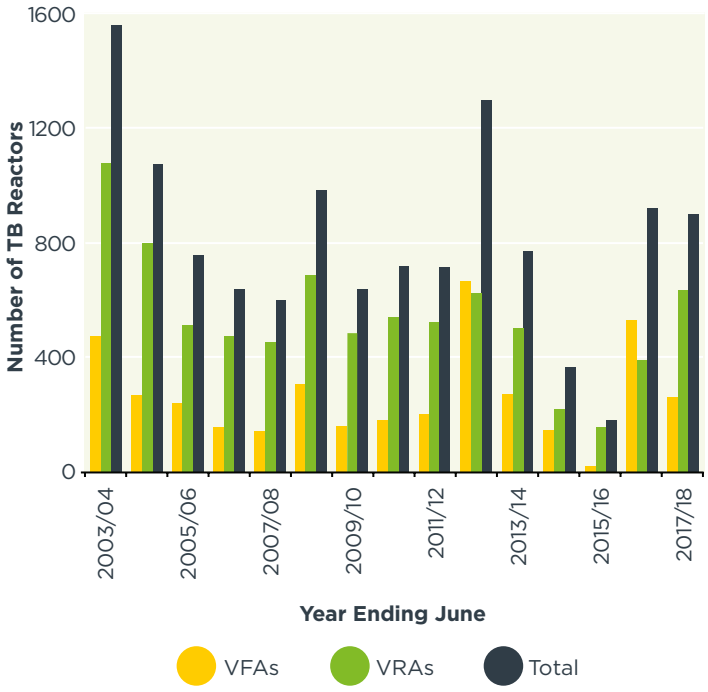
Serial ancillary (blood) tests were carried out on 6,575 cattle positive to the primary skin test. In addition, ancillary parallel gamma interferon blood tests were performed on 11,511 cattle that tested negative to the primary skin test for TB,

As a result of all these tests, 500 cattle were declared as TB reactors and were slaughtered. On slaughter, 41 (8.2%) of these TB reactors were found to have gross TB lesions at slaughter.

Figure 4 shows the trend in cattle reactors from 2003/04 to 2017/18.

FIGURE 3: NUMBER OF INFECTED CATTLE HERDS AT 30 JUNE 2018

FIGURE 4: NUMBER OF CATTLE TB REACTORS



2 Prionics Lelystad tuberculin, 3000 IU/dose

TABLE 6: INFECTED HERDS; PERIOD INFECTED HERDS; TB REACTORS AND TUBERCULOUS ANIMALS FOR 2017/18

(showing differences relative to 2016/17 categorised by cattle, deer as well as cattle and deer combined)

	CATTLE	DEER	CATTLE & DEER
TB infected herds as at 30 June 2018	27	5	32
Difference from 30 June 2017	-22	0	-22
TB infected herds during 2017/18[3] (period prevalence %)	67 (0.10%)	6 (0.28%)	73 (0.10%)
Difference from 2016/17	-4	0	-4
Number of TB reactors in 2017/18	500 (down from 922)	69 (up from 57)	569 (down from 979)
Difference from 2016/17	-422	+22	-410
Number of tuberculous animals in 2017/18[4]	64 (down from 148)	2 (up from 0)	66 (down from 148)
Difference from 2016/17	-84	+2	-82

TABLE 7: SOURCES OF INFECTION FOR CATTLE HERDS NEWLY INFECTED IN THE 12 MONTHS TO 30 JUNE 2018

	CATTLE INTRODUCED FROM INFECTED HERDS	CATTLE INTRODUCED FROM NON-INFECTED HERDS	RESIDUAL HERD INFECTION	WILD ANIMAL
Newly infected herds in VRAs	0	2	1	8
Newly infected herds in VFAs	2	4	1	0
All newly infected cattle herds	2 (11.1%)	6 (33.3%)	2 (11.1%)	8 (44.4%)

TABLE 8: CATTLE TB TEST RESULTS FOR 2016/17 AND 2017/18

CATTLE TESTING	2016/17	2017/18
Primary tuberculin tests on cattle	3,286,773	3,096,521
Primary test-positive cattle ancillary serial tested	5,817	6,575
Ancillary parallel tests on cattle	21,546	11,511
Total cattle reactors slaughtered	922	500
Total positive TB cattle reactors	111	41

TABLE 9: DEER TB TESTING RESULTS FOR 2016/17 AND 2017/18

DEER TESTING	2016/17	2017/18
Primary tuberculin tests on deer	175,119	172,223
Primary test-positive deer ancillary serial tested	423	802
Ancillary parallel tests on deer	0	0
Total deer reactors slaughtered	65	69
Total positive TB deer reactors	0	2

3 Number of infected herds for 2017/18 includes herds classified as infected at 1 July 2017, together with new herds found infected during the 2017/18 financial year (July–June)

4 Tuberculous animals include reactors and non-reactors found at slaughter with gross lesions of tuberculosis, which based on histology, PCR, culture or previous herd history of infection, are categorised as being caused by *Mycobacterium bovis*. It also includes reactors which had no lesions at slaughter but cultured *M bovis* from pooled lymph node samples

TUBERCULOUS CATTLE

The number of tuberculous (confirmed infected with TB) cattle includes the total number of cattle (both TB test reactors and cattle found during routine slaughter) with gross TB-like lesions or otherwise identified as infected following Polymerase Chain Reaction (PCR) assay or culture of *M bovis* from tissues. During 2017/18, 41 (8.2%) of the 500 reactors slaughtered showed visible TB lesions or had lesions sampled that were confirmed as being infected with *M bovis*.

Bovine tuberculosis was also identified in a further 23 cattle during routine slaughter (2 per 100,000 cattle slaughtered, based on 2.5m cattle slaughtered in 2017/18).

Figure 5 illustrates the long-term trend for TB found in cattle from 2003/04 to 2017/18 and shows the overall decline in the number of TB cattle, despite variable spikes in 2003/04, 2008/09, 2012/13 and currently. This mirrors that for reactors (Figure 4).

DEER

At 30 June 2018, there were five infected deer herds, the same under as at 30 June 2017. All infected herds were located in South Island VRAs.

Of the five herds infected at year-end, one was newly infected during the year (in Otago VRA; of wildlife source), while four were previously infected and remained so at 30 June 2018.

Figure 6 shows the steep decline in the number of infected deer herds that occurred between June 2004 and June 2010. Since then, numbers have remained relatively steady and low, at between two and five herds. The reduction since 2003/04 is largely due to maintaining low possum densities over large areas of New Zealand. It also reflects a large reduction in the number of deer being farmed. Ferret trapping in TB risk areas, and testing policy changes aimed at clearing infected herds more quickly, also contributed to the decrease early in this period, particularly in the Canterbury and Otago VRAs.

FIGURE 5: NUMBER OF TUBERCULOUS CATTLE

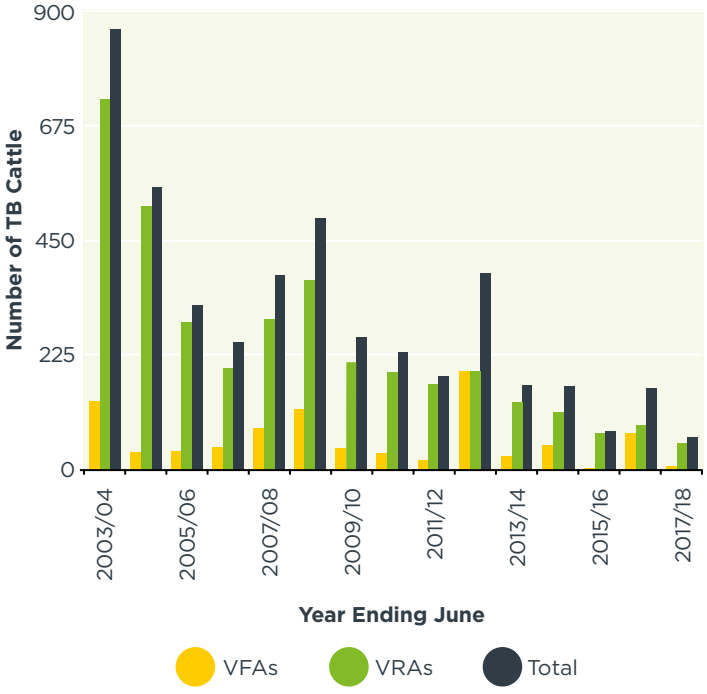


FIGURE 6: NUMBER OF INFECTED DEER HERDS AT JUNE

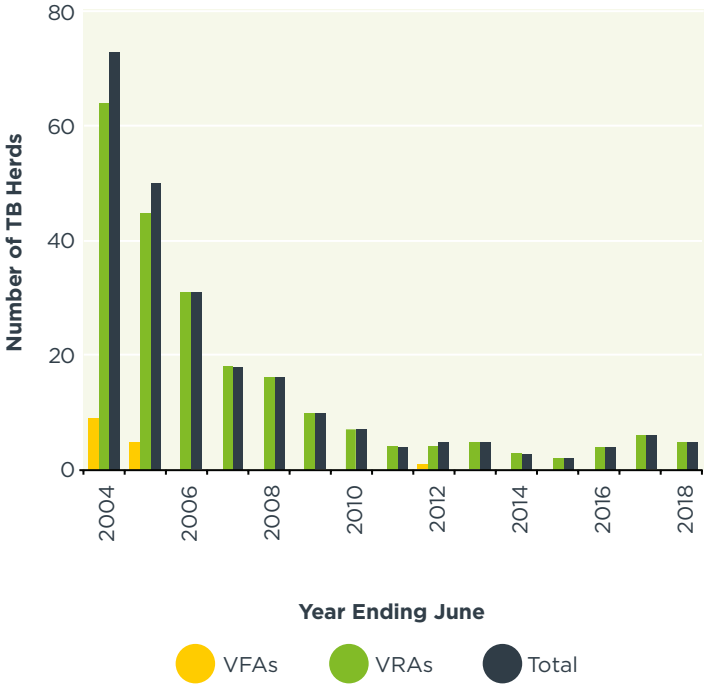


FIGURE 7: NUMBER OF DEER TB REACTORS

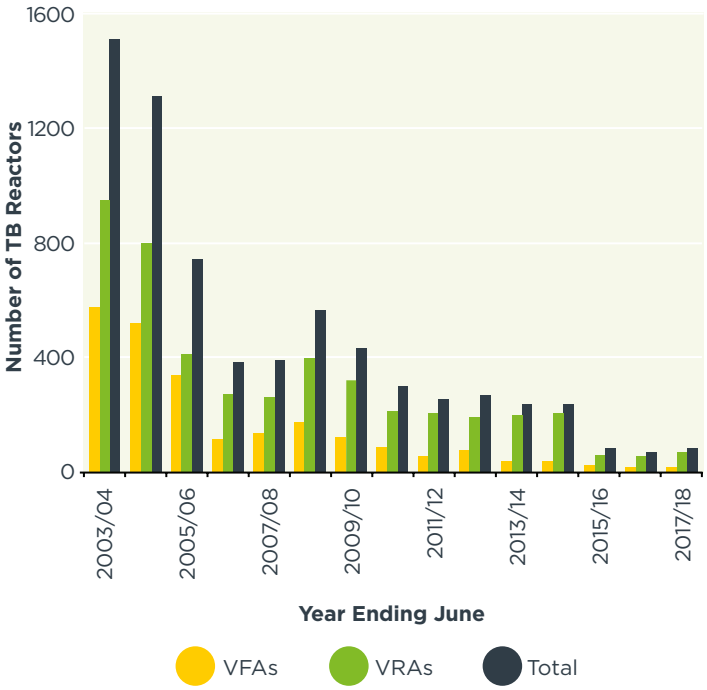
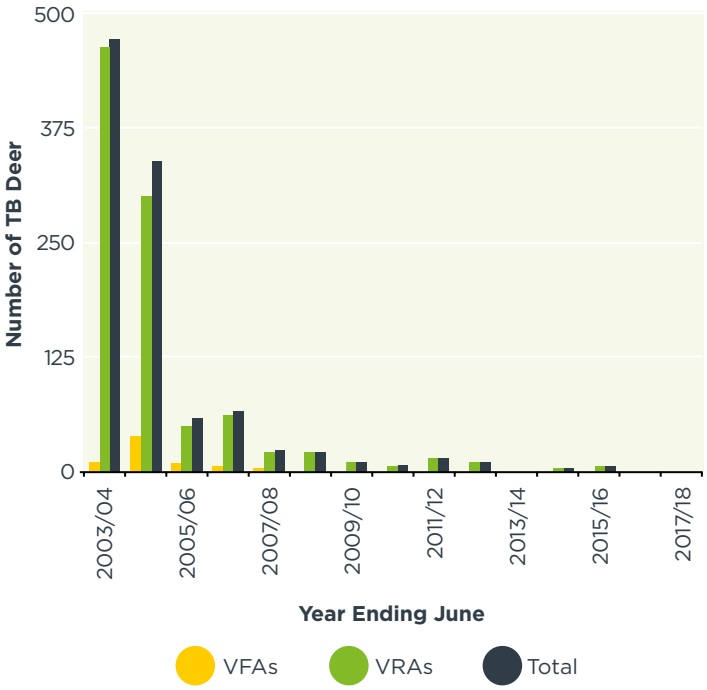


FIGURE 8: NUMBER OF TUBERCULOUS DEER



DEER TESTING AND REACTORS

Deer testing data is summarised in Table 5, which compares the number of TB tests performed and the number of reactors to tests in 2016/17 and 2017/18. In the year to 30 June 2018, 172,223 primary mid-cervical intradermal tuberculin tests (skin tests) were performed on deer compared to 175,119 in the previous year.

Serial ancillary (blood) tests were carried out on 802 deer positive to the primary skin test. No ancillary parallel tests were performed on deer in 2017/18.

As a result of all these tests, 69 deer were declared as TB reactors and were slaughtered. On slaughter, two (2.9%) of these TB reactors were found to have gross TB lesions at slaughter.

Figure 7 shows the trend in deer reactors from 2003/04 to 2017/18 by TB risk status area.

TUBERCULOUS DEER

The number of tuberculous deer includes the total number of deer (including reactors and deer found during routine slaughter) with gross TB-like lesions, or otherwise identified as infected following PCR assay or culture of *M bovis* from tissues.

During 2017/18, there were two TB reactors with visible TB lesions. No deer were found with TB lesions during routine slaughter. Figure 8 shows the trend in number of tuberculous deer between 2003/04 and 2017/18.

DISEASE CONTROL AREAS AND MOVEMENT ZONING

TB management requires the restriction of livestock movement from infected herds (where in most circumstances, cattle or deer can only move to slaughter) and from movement control areas where the TB risk from wildlife is considered high. Under the TB programme, New Zealand is divided into distinct disease control areas that have specific livestock testing requirements, as follows.

DISEASE CONTROL AREAS (DCAS)

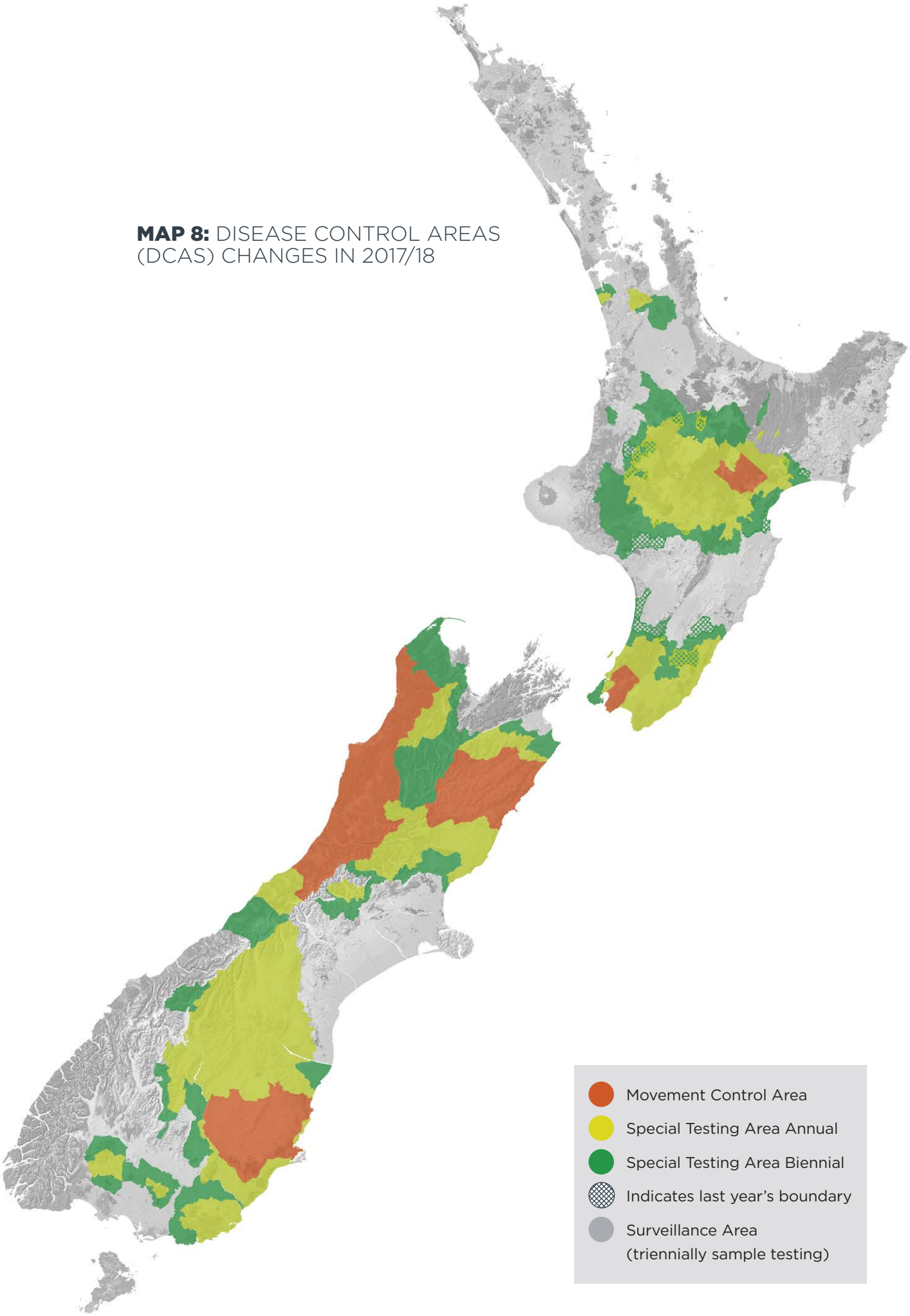
Areas of New Zealand are categorised into various TB testing regimes based on the risk of infection. These consist of Movement Control Areas (MCAs), Special Testing Areas (STA–annual and STA-biennial) and Surveillance Areas. To find out which testing regime a herd falls under, check the Disease Control Areas (DCA) map at www.ospri.co.nz. DCAs are shown on Map 8.

As TB is progressively reduced or eradicated in each area, the definition and boundary of each specified disease control area (DCA) is reviewed and testing requirements amended in association with residual disease risk. This year's DCA changes that came into effect on 1 March brought in DCA reductions of 317,000 hectares involving 1029 herds, resulting in 31,000 fewer TB tests for cattle and deer herds each year.

TABLE 10: DCAS AND SUMMARY STATISTICS FOR CATTLE AND DEER HERDS COMBINED

	MCAS	STAS (ANNUAL AND BIENNIAL)	SURVEILLANCE AREAS	NEW ZEALAND
Total herds at June 2018	2,528	15,878	52,110	70,516
Infected herds during 2018	51	14	8	73

MAP 8: DISEASE CONTROL AREAS (DCAS) CHANGES IN 2017/18

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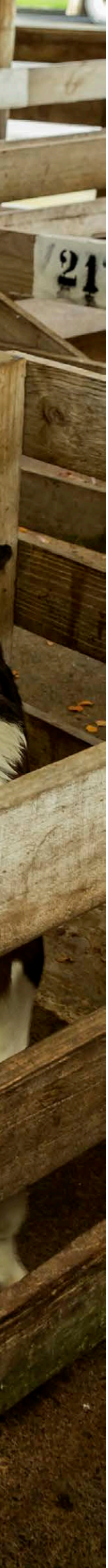


RESEARCH, DEVELOPMENT AND EXTENSION

The national TB Plan has included a significant Research, Development and Extension (R&D) programme for more than 20 years. Continuing research is directed at the development and implementation of new tools and processes for vector control and understanding the ecology of wildlife vectors and TB. OSPRI commissions research and collaborates with New Zealand's leading research institutions to inform programme design, and contributes to veterinary science and epidemiology, biology, engineering and environmental science.

The TB Plan has targets that extend to 2040 (TB-freedom in possums) and 2055 (TB eradication from NZ). Achieving these outcomes will require ongoing research and development investment to address OSPRI's needs for improved cost-efficiency in vector control and proof of TB freedom.

Consequently, it is critical that research capability is maintained to support technical programmes such as the TBfree programme facilitated by OSPRI. OSPRI plays a key role in investment in research and development for pest management practices and methodologies, which provide benefits beyond the TB eradication programme, and support the sound science that underpins livestock and wildlife animal health management and disease detection, surveillance, monitoring and control. OSPRI also seeks to build capability by supporting Masters, Post-graduate and Post-doctoral study programmes as part of its research investments.

In 2017/18, some research work was a continuation of multi-year projects. These reflect the refreshed three-year RD&E strategy developed with input from internal and external stakeholders in 2018. With the objective of TB eradication and, in particular, TB eradication in livestock by 2026, the R&D focus is shifting to the application of scientific methodologies and technologies with a definitive end-game in sight.

The process to define OSPRI's R&D strategic goals identified the need for a range of investments to address operational and technical goals and gaps.

GOALS

- A strong pipeline of both applied and fundamental research focused on achieving the short-term goal of freedom from TB in livestock by 2026, and the longer-term goal of proving freedom from TB in wildlife by 2040.
- The increased use of technology, remote monitoring and smart computing to maximise data capture and analysis, improving information around baseline possum populations, disease density and disease geographical movements that will enable areas to be declared free of TB.
- Increased focus on the implementation of research outcomes for disease diagnostics, operational planning and programme design.

RESEARCH REQUIRED

Ongoing research into several fundamental areas of programme design and implementation will continue to include:

- Developing species-specific baits and aerial control alternatives to 1080
- Cost-effective, accurate monitoring of wildlife populations and disease density, especially in remote areas where baseline population numbers are already small
- Diagnostic tests that will pick up latent TB in livestock
- Rapid turnaround of diagnostic testing and/or reliable testing in the field that ensures timely data is used in operational decision making and Proof of Freedom models
- Integrated and reliable decision-support tools for operational planning and prediction of Proof of Freedom.

The following sections provide highlights of OSPRI's current research and development activities and projects.

PROJECT: IMPROVED DETECTION OF LATENT BOVINE TB

SUMMARY: Rapid and accurate diagnosing of TB in livestock is key to the goal of eradicating TB in livestock by 2026. This project looked to enhance the detection of TB from whole blood culture assays; develop methods to detect live mycobacteria or biomarkers circulating in the blood of animals which could be used to identify TB not detected by conventional diagnostics; and further develop and validate one or more of the assays for use as a practical test for diagnosis of TB in cattle.

OUTCOME: A number of genes and biomarkers were identified which show promise for the development of new techniques for detecting TB, but further validation of these is required. However, of most significance was the detection of live M bovis in blood from infected cattle using Phage Plaque Assay (PPA) where researchers were successful in detecting M bovis from both fresh and frozen tissue. The importance of this for OSPRI, from an operational perspective, is that the PPA technique takes only 3.5 days to determine the presence of *M bovis* whereas the existing culture method can take 3-12 weeks. The reduced time of PPA is critical for operational planning and decision making in the field.

NEXT STEPS: Further work will be undertaken to progress use of the PPA test in order to reduce diagnostic testing turnaround times.

PROJECT: INCREASING THE ACCURACY IN *M BOVIS* DISEASE TRACEABILITY AND MAPPING THROUGH STRAIN TYPING AND WHOLE-GENOME SEQUENCING

SUMMARY: This study was carried out to improve our ability to use whole genome sequencing (WGS) to determine the source of new livestock infections, and to better define the degree that different types of *M bovis* have spread through NZ wildlife populations.

OUTCOME: DNA fingerprinting and the high resolution provided by Whole Genome Sequencing has greatly refined our ability to determine the source of new TB infections and to understand more about how *M bovis* is being transmitted. These techniques will not only improve our ability to quickly and precisely identify the source of new livestock outbreaks but will also provide some insights into how *M bovis* has been transmitted through different wildlife populations, which will aid in the design of future control strategies.

NEXT STEPS: Further work will be undertaken on WGS data analysis to inform our understanding of the disease's evolution and epidemiology in cattle and deer herds and in wildlife, thereby facilitating the evaluation and adjustment of control strategies.

PROJECT: TB FREEDOM IN FERRETS

SUMMARY: This research aims to confirm whether or not TB is persisting indefinitely (or at least for far longer than expected) in ferrets after possum control, of sufficient intensity and duration, has been imposed to be confident that TB has been eradicated from possums. If so, then a shift will be required in OSPRI's approach to TB eradication, towards greater levels of ferret control, and a need to directly assess TB freedom in ferrets as well as in possums. The project will test the hypothesis that ferrets can independently sustain TB indefinitely when at high densities, or for an extended period of many years when at moderate densities.

OUTCOME: Research outcomes will identify the intensity of ferret control needed to prevent any significant cycling of TB within the ferret population and develop a ferret-specific module as an add-on to the Proof of Freedom framework for use in highly ferret prone areas. The project is ongoing, with results from the initial surveys at Benmore and Mt Linton inconclusive at this stage.

PROJECT: IDENTIFYING OPTIMAL MANAGEMENT PROTOCOLS FOR ACHIEVING TB FREEDOM IN FERRET-PRONE AREAS

SUMMARY: Following on from the project above, the aim of this study is to identify the most reliable and cost-effective way of achieving TB freedom in the large number of South Island Vector Control Zones where TB could be present in ferrets. The study will compare costs and outcomes under three different management regimes over two years, with the key project outcome being a combined possum and ferret management protocol.

OUTCOME: This project is ongoing.

PROJECT: IDENTIFYING MINIMUM PATCH SIZE AND ISOLATION

SUMMARY: This project sought to determine the probability of TB reinfection of large habitat blocks by TB-infected possums moving from small habitat patches of varying sizes, carrying capacities, and isolation, so we could identify habitat that can be excluded from 'control and surveillance'. The goal was to reduce surveillance costs by being able to eliminate habitat patches, due to size and isolation, which were highly unlikely to pose a risk to reinfection following control operations.

OUTCOME: Results show that characterising low risk habitat patches based on the criteria of size, isolation and carrying capacity provides the basis for areas of a landscape that can be safely left unmanaged during mop-up control operations. Substantial savings (up to 20 percent) can be obtained from optimising mop-up operations in this way when attempting to eradicate TB in wildlife at a landscape scale.

NEXT STEPS: Results from this research will be incorporated into the decision-support models utilised by field staff for operational design and planning.

PROJECT: INCREASING CONFIDENCE IN THE POF FRAMEWORK

SUMMARY: To goal of this ongoing project is to enable more robust declarations of TB freedom at substantially lower total cost. It will do this by achieving a number of objectives as follows:

- Increasing confidence in the accuracy and consistency with which Area Disease Managers (ADMs) estimate prior probabilities of TB freedom;
- Designing a flexible decision support tool to assist ADMs in choosing the optimal mix of sentinel and possum surveillance;
- Identifying for each major operational context the most cost-effective balance between control, surveillance, and stopping thresholds; and
- Expanding the current assumptions about possum detectability and trappability used in modelling surveillance sensitivity to account for differences between major habitat types.

OUTCOME: As a result of findings to date from this project, several parameters in the Proof of Freedom models, previously thought to be independent of each other, are in fact interdependent and as a result the surveillance sensitivity in the model is being overestimated and needs to be adjusted to ensure accurate Proof of Freedom determinations. This study is ongoing.

PROJECT: DETERMINING THE EXTENT OF OVERESTIMATION BIAS IN CHEW-CARD-BASED TRAPPING

SUMMARY: Closely linked to the project above, this study seeks to eliminate bias in estimating surveillance sensitivity by developing an improved estimation approach that fully accounts for the lack of independence in trap clusters. The research will develop new probability theory and algorithms accounting for sequential trap encounters by possums, based on sequential trap encounters in the field.

OUTCOME: The project aims to resolve concerns that the TB Proof of Freedom calculator overestimates surveillance sensitivity and therefore overestimates the probability of TB freedom. This ongoing study will investigate this concern by recording encounter and capture rates of marked possums on post-detection trap clusters.

PROJECT: DEVELOPING AND TESTING TOOLS AND SYSTEMS FOR PREDICTING TB FREEDOM FROM POSSUM ABUNDANCE INDICES

SUMMARY: This project complements and extends on the "TB freedom without surveillance" project above. It aims to assess in principle whether it is theoretically, practically and cost-effectively feasible to confidently predict TB eradication given empirical evidence indicating that possum densities are both very low and very even.

OUTCOME: The project will enable indices of relative possum abundance to be converted into estimates of actual possum density which can then be used in the OSPRI operational planners' Spatial Possum Model. This research will provide the first trial application of a method to predict the probability of future TB freedom based on an empirical measurement of possum abundance. This project is ongoing.

PROJECT: IMPACT OF DEER REPELLENT ON RED DEER AND TAHR

SUMMARY: This applied research aims to assess the magnitude of by-kill caused by aerial 1080 possum control and the extent to which any significant by-kill of red deer and tahr can be limited by the use of deer repellent on the 1080 baits.

OUTCOME: This project is ongoing with no results to report yet.

PROJECT: TESTING THE PCR AND ORILLION DEER REPELLENT BAITS ON POSSUMS AND SHIP RATS.

SUMMARY: An applied project looking at the palatability and effectiveness of possum baits when deer repellent has been applied. The study aims to ensure maximum effectiveness of the repellent in preventing deer deaths, whilst at the same time not losing any effectiveness or bait attractiveness for possums.

OUTCOME: This project is ongoing. The desired outcome will be effective possum baits that do not get eaten by deer.

PROJECT: TB FREEDOM WITHOUT SURVEILLANCE

SUMMARY: In order to achieve the target of declaring 2.5m hectares of New Zealand free of wildlife TB by 2026 on time and within budget, proof of freedom from TB will be required in large, remote areas where current surveillance methods are not affordably feasible. The proposed research will provide a robust way of quantifying, though modelling and field testing, TB freedom in these regions without the need for surveillance and identify how little aerial control (and monitoring) would be needed to provide high confidence of TB eradication in large mountainous areas.

OUTCOME: It is envisaged that the new monitoring system will enable us to accurately characterise the residual possum population (soon after each aerial 1080 control operation and, subsequently, just before the next one) in terms of both the overall average density and the extent to which it varies between location. This will enable more accurate modelling of possum distribution in space, and how that changes over time as possum re-aggregate and increase in number between operations. Ultimately it will provide an affordable tool for estimating the percentage kill achieved by a particular control operation. This project is ongoing.

PROJECT: FUTURE DECISION TOOLS

SUMMARY: The Proof of Freedom framework has become the central tool in OSPRI'S progressive roll-back TB eradication strategy and has seen some fundamental change in the way management success is assessed. A suite of software tools and decision-support systems has been developed and there is ongoing refinement and extension of these tools. One example of these products is the decision-support tool "JESS" which enables OSPRI planners to objectively calculate, in advance, the approximate level of surveillance required to move an area from the current probability of TB freedom to the target value of 0.95. The aim of this project is to extend the capabilities and functionality of the suite of POF-related software and deliver the next generation of new and improved applications and decision-support tools for the Proof of Freedom process.

OUTCOME: This project is ongoing.

KEY PROJECTS DURING 2017/18

EASD PILOT

The eASD pilot commenced with Silver Fern Farms in February 2017 and was completed in August 2017. With the support of RMPP, OSPRI moved towards phase 1 full implementation of the Pilot following positive feedback from the participating farmers and Silver Fern Farms, and from government and industry as well. The pilot contained 79 users who completed 427 eASDs within the application for sending sheep, cattle and deer direct to slaughter. During the pilot period, participants moved 6,673 cattle, 111,923 sheep and 21 deer.

Currently there are 22 plants and three additional supply groups participating, with eASD usage now increased to 660 active farmer and 31 processor users, who have to date completed 4,365 electronic ASD forms moving 30,297 cattle, 537,809 sheep and 15,447 deer.

Since the success of the eASD pilot and phase I implementation, OSPRI has been approached by other organisations to discuss how they might be able to utilise eASDs into their own practices, this includes farm to sale yards movements and farm to farm movements.

The completed eASD full implementation business case is still under consideration by the eASD stakeholder reference group which includes OSPRI shareholders, MPI, MIA, Federated Farmers, Road Transport Forum and Stock and Station Agents representatives. This will determine the next steps for the eASD application and programme.

TB DISEASE MANAGEMENT INTEGRATION WITH NAIT

OSPRI has commenced the project to integrate TB infected, previously infected and suspected herd data, post-mortem examination results and test data from the Disease Management System into NAIT at individual animal level. This work first involved the integration of infected, previously infected herd and reactor tag data with NAIT, creating a module for ongoing surveillance and monitoring for TB disease management. This is essential for post movement testing to be applied in the future Risk Based Testing regime and to support the post mortem surveillance programme sought to be established for TB monitoring as a precursor to risk-based testing.

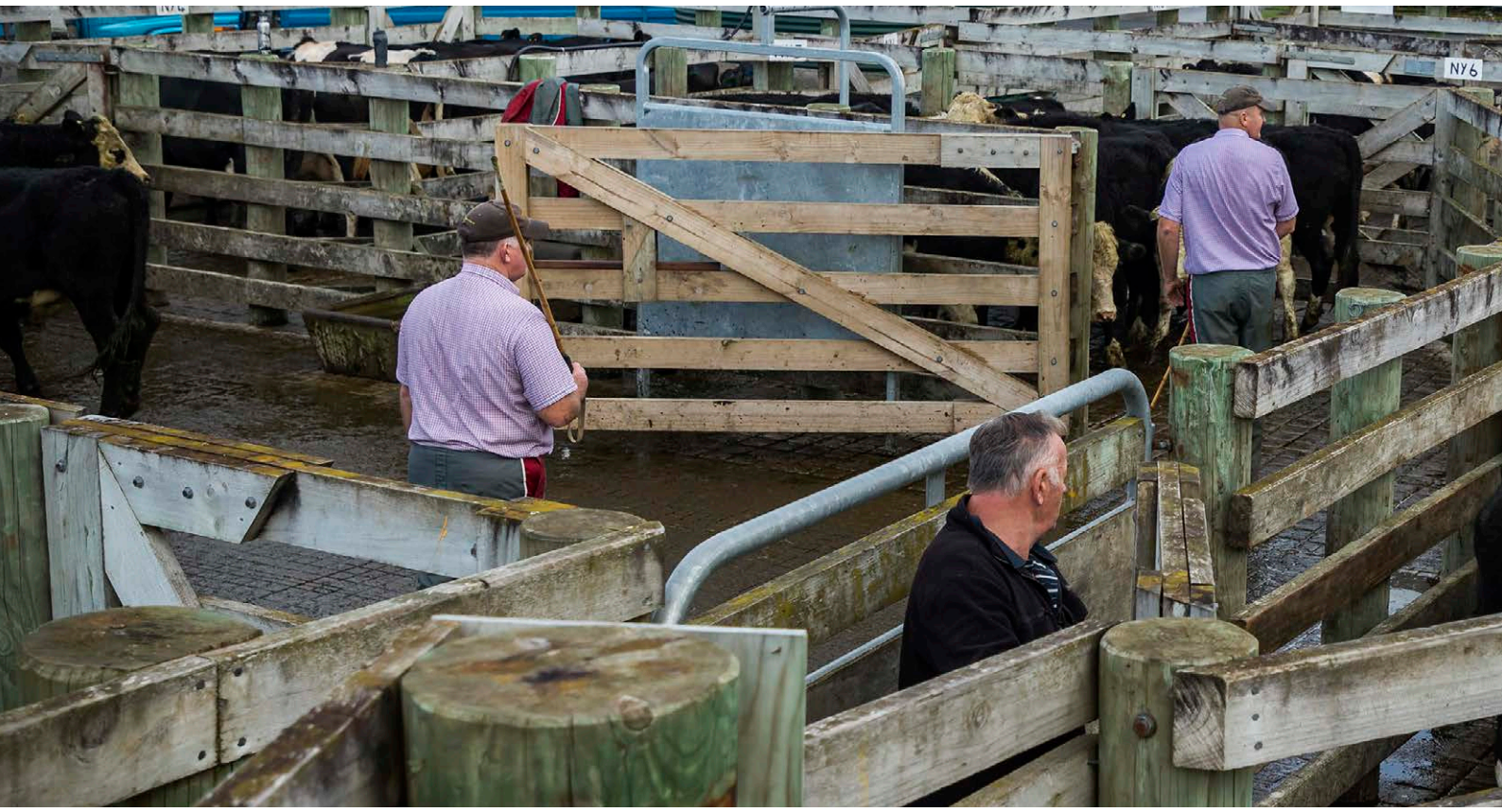
The remaining phases involve the introduction of upload of testing data against individual animals and laboratory data at the individual animal level, to occur during 2018/2019. The overall outcome will be improved integration and management of TB utilising NAIT for ongoing surveillance, monitoring and traceability purposes.

ELECTRONIC REGISTRATION FORM DEVELOPMENT

A revised registration form is being designed (integrated TB and NAIT) with implementation proposed by end-October to support movement to risk based testing and NAIT review implementation.

HGP AND BPQ TREATMENTS AND FMD VACCINATION

MPI approached NAIT in 2017 to investigate feasibility of utilisation of NAIT for tracing of animals that were Hormonal Growth Promotant (HGP) and buparvaquone (BPQ) treated. HGP and BPQ treatments can currently be added as an attribute to an animal in NAIT and a module created for traceability purposes and reporting of these key attributes. A proposal was provided to MPI for further consideration



MYCOPLASMA BOVIS DISEASE MODULE PROJECT

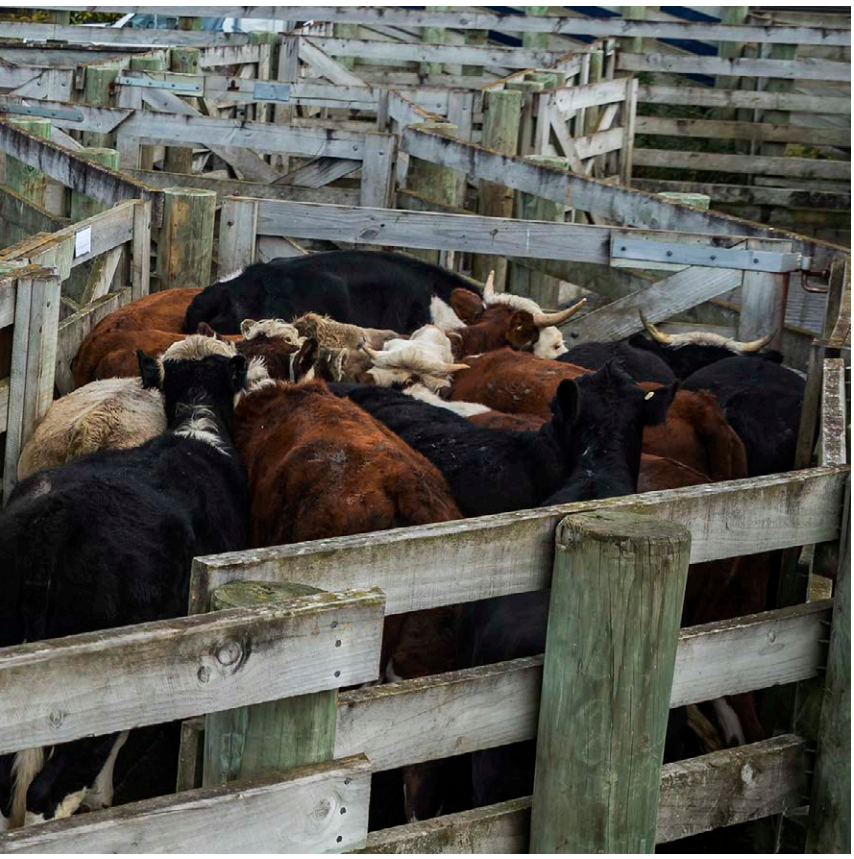
OSPRI continued to work with MPI to provide traceability data and analysis towards the ongoing tracing of *mycoplasma bovis* infected animals and herds within New Zealand. Following the MPI decision to depopulate the infected herds, a project was completed in 2017 to develop NAIT functionality. This was to enable the identification of disease risk status against a premises/location in the NAIT system. It also allowed animal disease history and the recording of additional attributes captured by MPI field teams in the NAIT system. Products of this project could be utilised in the future for other diseases that rely on traceability for purposes of animal health surveillance.

DEER INDUSTRY DATE OF BIRTH IN NAIT

A series of NAIT system changes were released in 2017 to enable assignment of the month of birth for deer automatically based on the animal registration date. This proof of animal age is essential for the deer industry to meet Cervena venison standards and more generally for the purposes of traceability underpinning industry food safety and product integrity standards in the sector. This change was agreed with industry and communicated to users with success.

POST MORTEM SURVEILLANCE FOR TB AND MEAT INSPECTOR TRAINING

An outcome of applying the proposed Risk Based Testing (RBT) framework within the bovine TB National Pest Management Plan (NPMP) will be the greater utilisation of meat processing plant TB surveillance than currently occurs through random inspection at present. In many areas, slaughter surveillance of TB, much like the processes employed by other countries that have successfully eradicated TB, will potentially become the fundamental means of TB surveillance at the national level. This project is a precursor programme to set up supply chain TB surveillance, alongside re-registration of users in NAIT, in order to commence the risk-based testing introduction which will start with deer.



Since NAIT already contained fields allowing the collection of carcase defect data, the system was enhanced to capture additional details relating to conditions that may be precursor of TB presence.

Engagement with processors on collection of post mortem data for TB detection and surveillance is now occurring following the introduction of the web interface that enables the upload of carcase disposition data by meat processors for purposes of TB surveillance and monitoring.

High TB detection probabilities at slaughter also requires the consistent delivery of the meat inspection service by suitably trained individuals, supported by on-going skills maintenance programmes. OSPRI developed a further project, aimed at revising the current meat inspection training modules to include the latest technical material generated through the TB Plan review and to include further information on required TB detection procedures that will ensure disposition data relevant to TB surveillance is effectively and routinely captured.

OSPRI is currently working with AsureQuality to develop this TB meat inspection module that will supplement the current meat inspection training and accreditation processes. This TB meat inspection module will be supplied to all meat processors for their own reference in Standard Operating Procedure development and internal QA and inspection related training processes.

REPORTING DASHBOARDS

A series of new reporting dashboards for engagement with government, shareholders and stakeholders have been generated. These new reporting dashboards integrate more dedicated measures for the TB and NAIT programmes in terms of progress and status. In particular, emphasis on the need to affirm TB measures beyond infected herd numbers was a key driver as the number can vary considerably depending on seasonality impacts of numbers of tests completed, calving, mating and other farm management practices.

These new reporting dashboards relate to the presentation and quarterly reporting of key statistical measures of progress for both the NAIT and TB programmes, with the TB dashboards covering both livestock disease metrics and possum/wildlife disease metrics.

SUPPORTING BATTLE FOR OUR BIRDS CAMPAIGN

During the past year OSPRI continued to support the Department of Conservation (DOC) by helping to deliver their 'Battle for our Birds' (BFOB) pest control programme. OSPRI has delivered 11 operations over 255,000ha in support of this with an additional two operations over 50,000ha to be delivered when spring weather conditions allow.

The key objectives of BFOB are to:

- Prevent any local extinction of the most vulnerable species
- Minimise predator damage to our most valuable ecosystems
- Improve efficacy and efficiency of pest management to control rodents and mustelids.

Various methods of control are utilised by DOC to control pest numbers for a range of pest species. One of the main tools is aerial distribution of 1080 toxic bait, which is well suited to New Zealand conditions for the control of a range of pests, especially possums, rats and stoats. Initial pest population monitoring of these operations has shown for the most part targeted pest species have been reduced to below detectible levels. Initial outcome monitoring showed improved nesting success for iconic species such as kea, kaka and whio in BFOB project areas when compared to areas outside the programme.

This is the third year that OSPRI has cooperated with the Department of Conservation in the delivery of these operations. With the planned increase in size of their pest control programme OSPRI will continue to work with DOC especially in areas where their biodiversity protection aims align with OSPRI's wildlife disease eradication plans. This cooperation should ensure that operational duplication is minimised and the return on investment to our respective funders and stakeholders are maximised.

CORPORATE ACTIVITIES

HEALTH AND SAFETY

OSPRI management is proud of, and committed to building upon, the major successes of our first three-year strategy. Key outcomes from the former health and safety strategy included the following:

RISK MANAGEMENT

- Implementation of risk management and reporting systems that enabled analysis and understanding of our risk profile
- Maintenance of tertiary WSMP accreditation of our health and safety management systems.

COMPETENCY AND TRAINING

- Launch of the TBfree Safe Operator certificate as a precursor for the New Zealand Certificate in Pest Operations (Level 3)
- Implementation of a training refresher programme for high-risk off-road vehicles.

CONTRACTOR SAFETY

- Development of highly-regarded contractor procurement and management practices
- Development of mechanisms to consult and communicate with our field contractors
- Completion of surveys and workshops to understand the issues our contractors face.

LEADERSHIP

- Development of management knowledge of health and safety theory
- Establishment of a team of informal safety leaders who can investigate, audit and demonstrate safe work
- Strengthening of strategic relationships with Safer Farms and DOC, alongside engagement with other primary industry partners on health and safety initiatives.

HEALTH AND WELLBEING

- Commencement of health risk assessments and environmental monitoring
- Establishment and implementation of a wellbeing committee.

HEALTH AND SAFETY STRATEGY TO 2020

In 2017 OSPRI launched its new three year strategy which was designed with the following purposes in mind:

- Build on our progress so far
- Provide a sense of purpose and direction
- Enhance certainty of safety and health
- Focus our attention on matters that will make a difference
- Enable targeted, responsible and sustainable investment.

VISION, AIM AND PRIORITIES OF THE NEW STRATEGY

- Our vision is that our work is done safely and efficiently
- Our aim is that every worker goes home safe and healthy, every day
- Our immediate priority is to reduce the potential for serious injury or death.

OUTCOMES OF THE NEW STRATEGY

- Health and safety is a key part of all work and our company culture
- Nobody will be seriously harmed while doing our work.

WHAT SUCCESS LOOKS LIKE

OSPRI understands that by continuing to demonstrate that we care about what we do and how we do it, other people will respond accordingly. So, we will know we've been successful when:

- Our workers have the resources they need to do the work safely and efficiently
- Our leaders demonstrate exemplary behaviours and attitudes
- Our workers believe that OSPRI is committed to keeping them healthy and safe
- Workers know their rights and responsibilities in a healthy and safe workplace
- Stakeholders and the public can have confidence in our ability to deliver work efficiently and safely
- Controls that are designed to prevent serious injury, illness or death are effective
- The risk of life-changing work injury or illness is as low as reasonably practicable.

STRUCTURE

The Health and Safety Strategy is comprised of the four strategies visualised below that acknowledge and build on our successes to date; reflect the reality of current cultural, operating and regulatory environments; and reflect advancements in H&S theory and practice.

VISUALISATION OF STRATEGY AND KEY FOCUS AREAS

ENSURE WORKERS HAVE THE CAPABILITY TO WORK SAFELY AND EFFICIENTLY

- Ensure all workers are given the resources they need
- Ensure consistently high levels of training and competency
- Develop our network of confident and engaged safety leaders

COLLABORATE WITH WORKERS, SUPPLIERS AND STAKEHOLDERS

- Talk with workers and use their ideas for more efficient safety
- Talk to land occupiers to build assurance and cooperation
- Leverage existing and build new partnerships

SAFE EFFICIENT WORK

UNDERSTAND AND EFFECTIVELY CONTROL CRITICAL RISKS

- Fully understand and clearly communicate our critical risks
- Identify and implement controls for health risks
- Target effective safety risk controls

BUILD CONFIDENCE THAT WE PROACTIVELY MANAGE H&S

- Undertake safety tours, audits and observations
- Provide assurance to stakeholders
- Maintain accredited systems and continue to improve them

MARKETING AND COMMUNICATIONS

During the year, OSPRI continued to focus on improving communication and engagement across our work, including building greater awareness of the TBfree and NAIT programmes and sharing our knowledge and expertise.

EXTENSION ACTIVITIES

Stakeholder engagement for the TB and NAIT programme extension within OPSRI has progressed significantly over the past 12 months with a focus on sharing TB and NAIT information with industry partner extension, training and education programmes. There has been increasing interaction of OSPRI's extension and communication teams with executive peers in Dairy NZ, Beef and Lamb NZ, DINZ and Federated Farmers and MPI. Alongside the main focus groups relationships have further been developed with groups such as Dairy Woman's Network, New Zealand Young Farmers and Primary ITO.

Emphasis has been placed on collateral development over the last 12 months, including:

- Extension material explaining TB basics
  - What the disease is
  - The process for testing and reactor disposal
  - TB plan information
  - TB close to urban communities
  - Use of sentinel species in the TB programme
  - Wider pest control information
  - Videos explaining TB freedom
- Risk Based Pest control concepts and regional factsheet information for rural communities outlining the regional and area specific programme
- Development of a training video for agricultural students under taking unit standard courses and NAIT and TB questions placed in dairy company supply documents.

New support and educational material has also been completed for infected herd owners as part of the revised infected herd Stand Operating Procedures.

Further extension material has being developed to support the NAIT programme identifying specific collateral for each user group and information on they can undertake the tasks to comply with the scheme including information pamphlets, user guides and tutorial modules. Training material is based on the key messages of Register location, Tag Animals, Register tagged animals and Create and Record movements. A significant emphasis of OSPRI attendance at major stakeholder events has been focussed on education and checking of NAIT accounts and providing advice on how accounts can be brought up to date and remain current and correct.

OSPRI's presence at field events, regional field days and industry engagements has been a priority over the past year with OSPRI having a site at the four major field days throughout the country and stands at OSPRI's shareholder conferences. Further stakeholder engagement was achieved through stands at smaller events such as Ag fest West Coast, East Coast farming show, deer technology events, South Island Dairy Event, Dairy Woman's Network conference, Share Milkers and Supply Herd and New Zealand Young Farmer events.

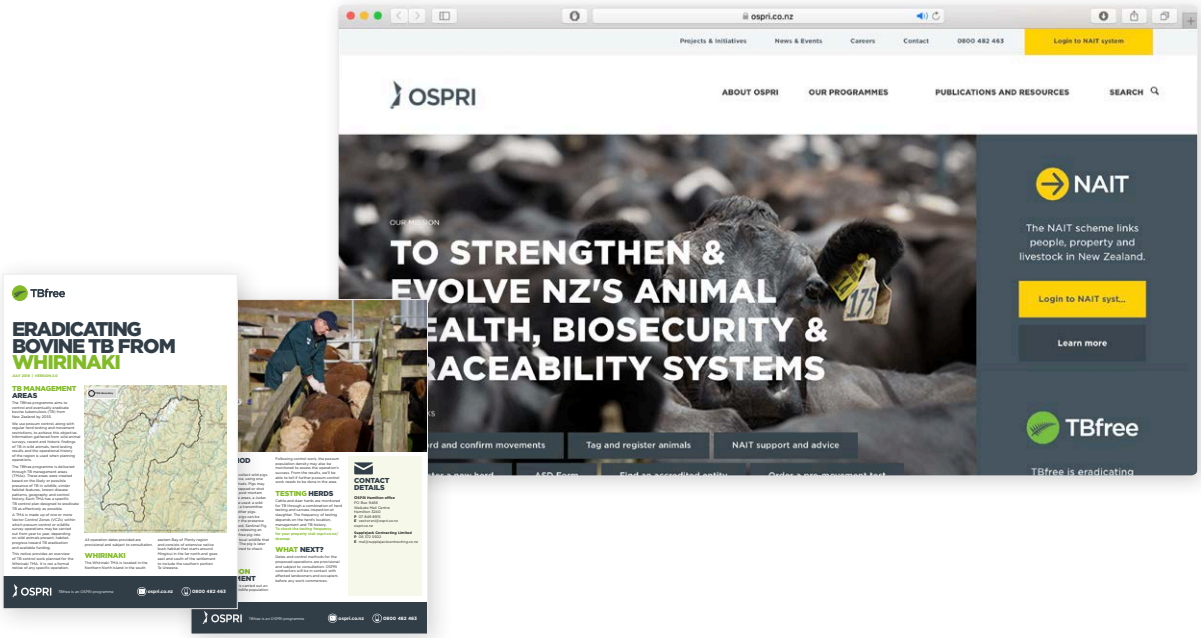
Support was also given through attendance and presentations at 33 Biosecurity/winter grazing meetings organised by OSPRI shareholders Beef and Lamb, Dairy NZ and MPI alongside attendance and support at a range of smaller monitor farms, dairy company events and discussion groups.

TB COMMITTEES

OSPRI supports 12 TBfree committees to maintain effective links with the farming community and stakeholders at a regional level. The committees promote the TBfree programme in their regions and are a source of advice and feedback to OSPRI on policy and operational issues.

During the year a review of the committee structure was completed which resulted in the merger of the Northern North Island, Mid Northern North Island, Top of the South and Canterbury committees. A number of new members also joined different committees throughout the year.

Regular feedback from committee members is provided to OSPRI which is then used to help develop extension and communications activities or collateral, such as new guidance, publications or updates to the OSPRI website.



SOCIAL MEDIA

Ensuring farmers and the wider industry are informed and engaged with the NAIT and TBfree programmes is key to OSPRI's marketing and communications strategy. Our Facebook page is continuing to increase its audience and engagement with TBfree posts performing particularly well. Since last year, we have increased our following by 15% with our organic reach especially healthy. For example, a Facebook post earlier this year related to TBfree special operations, was our best ever reaching over 20,000 people, this was without any external promotion.

NAIT related Facebook posts are also attracting greater interest and engagement especially regarding the various programme requirements for farmers and the wider industry. It is anticipated this trend will continue with the launch of a new suite of NAIT publications and user guides from September 2018 including video and animation, which have proved popular mediums when shared on social media platforms.

OSPRI ENEWS

For a more strategic and measured communications approach, our eNews has been refreshed to target specific industry groups, audiences and events. In particular, to reflect greater farmer interest and engagement with the NAIT and TBfree programmes, we introduced more regular updates for PICAs and industry stakeholders, culminating in 54 eNews campaigns throughout the past year.

In mid-2018, the OSPRI News became a monthly online publication. Open rates of 34% compare favourably to the industry average of 25%. Engagement is also on an upward trend with the surge in interest indicative of increased farmer awareness around their NAIT obligations and the marked progress made with the TBfree programme.

MARKETING

Throughout the past 12 months, OSPRI has targeted farmer and rural print publications to build greater awareness of the NAIT and TBfree programmes. While farmers are becoming more internet savvy, a recent media industry survey showed the majority still prefer the traditional medium of print publications. Our advertisement strategy is aligned to the farmer calendar/events and aspires to produce compelling and engaging messaging that OSPRI stakeholders and the wider primary sector can relate to.

NEW OSPRI WEBSITE

In November 2017 OSPRI's new website was launched. This now provides a single one-stop shop website which is home to all NAIT and TBfree programme information. OSPRI has developed a suite of new publications, resources and tools also now available on the website.


OSPRI
Sam Fraser
OSPRI PIT
PIT CRE

SUMMARY CONSOLIDATED FINANCIAL STATEMENTS

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GOVERNANCE

The OSPRI Board of Directors (the OSPRI Board) is responsible for and committed to maintaining the highest standards of corporate governance, ensuring transparency and accountability to shareholders and stakeholders.

NOMINATION AND APPOINTMENT OF DIRECTORS

Procedures for the appointment and removal of directors are governed by the company's constitution. The following describes the process applicable during the 2017-18 year.

The major shareholders, DairyNZ Limited and Beef + Lamb New Zealand Limited are each entitled to appoint one director.

The Stakeholders' Council identifies and nominates candidates to fill up to five additional director positions for approval by shareholders. The maximum term for which a director may be appointed is three years. A director is eligible for re-appointment or re-election after the expiry of his or her term of appointment.

OSPRI New Zealand Limited has appointed directors to the boards of each of the two subsidiaries, TBfree New Zealand Limited, and National Animal Identification and Tracing (NAIT) Limited.

DIRECTOR CHANGES

Deborah Roche resigned her directorship of OSPRI New Zealand Limited from 26 March 2018 when she left the Ministry of Primary Industries (her director appointment was as the Ministry's representative) and also ceased to be a director of TBfree New Zealand Limited and National Animal Identification and Tracing (NAIT) Limited at that time.

Stephanie Rowe is an observer and attends Board meetings on behalf of the Ministry of Primary Industries.

Jeff Grant resigned his directorship and as Chair of OSPRI New Zealand Limited on 29 June 2018 and also ceased to be a director and Chair of TBfree New Zealand Limited and National Animal Identification and Tracing (NAIT) Limited at that time. Jeff Grant was the Beef + Lamb New Zealand Limited director appointment.

Following Jeff Grant's resignation, the Board appointed Barry Harris as its new Chair.

James Parsons was appointed as a director on 29 June 2018 by Beef + Lamb New Zealand Limited as Jeff Grant's replacement and will complete the term of Jeff's appointment (to the 2019 OSPRI Annual General Meeting). James was appointed as director of TBfree New Zealand Limited and National Animal Identification and Tracing (NAIT) Limited by the OSPRI Board in June 2018.

BOARD COMMITTEES

The Board has established the following committees to examine proposals and make recommendations.

AUDIT AND RISK COMMITTEE

The Committee consists of at least three board members. Collectively, people appointed to the Audit and Risk Committee need to have:

- financial expertise
- knowledge of governance, assurance, and risk management best practice
- other attributes as deemed appropriate (for example, legal or information technology experience).

The Chair of the Committee shall not be the Chair of the OSPRI New Zealand Limited Board. The membership shall be for one year and shall provide for both continuity of membership and the contribution of fresh perspectives.

The Committee's responsibilities include the following:

- liaison with internal and external auditors
- review of the annual audit plan with the external auditors and their letter of engagement
- approval of the annual internal audit plan, and the terms of reference for each audit
- review of audit findings and monitoring of any consequential actions
- review of half-yearly and annual financial statements
- prior clearance of public releases of financial information in reports and to the media
- review of accounting policies
- review of the adequacy of the internal control structure and associated organisational policies
- review and monitoring of legislative and statutory compliance processes
- review of the frequency and significance of all transactions between the company and related parties and assessment of their propriety
- review of the appointment of external and internal auditors and their fees
- review of the independence of the external auditors and the appropriateness of any non-audit services they undertake for OSPRI
- supervision of any special investigations requested by the Board
- oversight of the risk management system for the company
- advise the Board and recommend and monitor any remedial action plan in respect of any significant non-compliance with policies
- review all whistle blowing matters raised and escalate to the full Board.

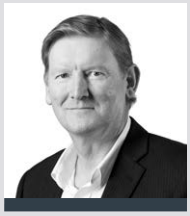
HUMAN RESOURCES COMMITTEE

The objective and role of the Committee is to assist the Board to fulfil its responsibilities in relation to setting and reviewing policies and standards for employees relating to remuneration and employment practices of OSPRI and its subsidiaries. The Committee also oversees the OSPRI Director Mentoring Programme.

BOARD AND COMMITTEE MEETINGS

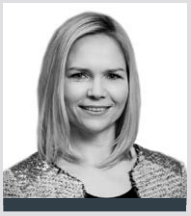
The Board normally meets at least 10 times a year and/or whenever necessary to deal with specific matters. The table below documents the directors' board attendance and committee members' attendance at meetings during the year ending 30 June 2018.

Director	Board	AR Committee	HR Committee
Jeff Grant (resigned 29.06.18)	8	3	4
Lesley Campbell	9	3	4
Barry Harris	7	5	
Deborah Roche (resigned 26.03.18)	5	2	
Fenton Wilson	9	5	4
Mike Pohio	7	5	
James Parsons (appointed 29.06.18)	1	1	1



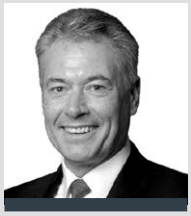
Barry Harris
Chair

Lesley Campbell
Director



Deborah Roche
Director

Fenton Wilson
Director



Mike Pohio
Director

James Parsons
Director

The Audit and Risk Committee comprised Mike Pohio (Chair), Barry Harris, Fenton Wilson, and Deborah Roche (until March 2018).

The Human Resources Committee comprised Lesley Campbell (Chair), Jeff Grant (until June 2018), Fenton Wilson and James Parsons (from June 2018).

The Chairman of the Board is an ex-officio member of all committees of the Board.

REMUNERATION REPORT

DIRECTORS' REMUNERATION

DIRECTORS' FEES

These fees have been applied for the year from 1 July 2017 to 30 June 2018.

Position	2017/18	2016/17
Chairman	$70,000	$70,000
Director	$35,000	$35,000
Committee Chair	$4,000	$4,000

REMUNERATION DETAILS OF DIRECTORS

Details of the total remuneration and the value of other benefits received by each OSPRI director for the 2017/2018 financial year are as follows. Directors' fees exclude GST where appropriate. In addition, Board members are entitled to be reimbursed for costs directly associated with carrying out their duties, including travel costs. Some Board members were remunerated for their time as members on the NAIT Data Access Panel (set up under the National Animal Identification and Tracing (Information System Access Panel) Regulations 2012).

Director	Position	2017/18 Fees	2016/17 Fees
J Grant[1]	Chairman	$70,000	$70,000
L Campbell[2]	Director	$45,000	$45,000
B Harris[3]	Director	$41,000	$41,000
F Wilson[4]	Director	$35,000	$35,000
M Pohio[5]	Director	$45,000	$26,952
J Parsons	Director	nil	-
Total		**$236,000**	**$217,952**

1 J Grant resigned from the Board and as Chair on 29 June 2018

2 L Campbell is Chair of HR Committee and a member of the NAIT Data Access Panel

3 B Harris resigned from the NAIT Data Access Panel and was appointed Chair on 29 June 2018

4 F Wilson was appointed to the NAIT Data Access Panel on 29 June 2018

5 M Pohio is Chair of the A&R Committee and a member of the NAIT Data Access Panel

EMPLOYEE REMUNERATION

The table below shows the number of OSPRI employees who received remuneration and other contracted benefits (including redundancy or termination payments) during FY2018 of at least $100,000.

The remuneration figures analysed include all monetary payments actually paid during the course of FY2018 whether in respect of FY2018 or other periods.

Remuneration bands	# employees 2017/18	# employees 2016/17
$100,000 – $109,999	5	3
$110,000 – $119,999	8	5
$120,000 – $129,999	3	6
$130,000 – $139,999	2	8
$140,000 – $149,999	2	3
$150,000 – $159,999	1	1
$160,000 – $169,999		1
$170,000 – $179,999	3	1
$180,000 – $189,999	2	1
$190,000 – $199,999		
$200,000 – $209,999		
$210,000 – $219,999		
$220,000 – $229,999		1
$230,000 – $239,999	1	
$240,000 – $249,999		
$250,000 – $259,999		1
$350,000 – $359,999	1	
$370,000 – $379,999		1
Total	**28**	**32**

AUDITORS REMUNERATION

KPMG was appointed auditors of OSPRI group. The following amounts were paid to the auditors of OSPRI New Zealand and its subsidiaries during the year.

Auditor	Work Undertaken	2017/18	2016/17
KPMG	For Audit Work	$40,000	$35,000
KPMG	For Other Work	nil	$16,294

STATUTORY DISCLOSURES

DISCLOSURES OF INTERESTS BY DIRECTORS

The following are particulars of general disclosures of interest by directors holding office as at 30 June 2018, pursuant to section 140(2) of the Companies Act 1993. Each such director will be regarded as interested in all transactions between OSPRI and the disclosed entity.

B S Harris	
DairyNZ Ltd	Director
Food Waikato	Chair
McFall Fuel	Chair
National Animal Identification and Tracing (NAIT) Limited	Director
TBfree New Zealand Limited	Director
Waikato River Authority	Member
Wintec	Chair
WEL Networks Ltd	Director

L A Campbell	
Fisheries Advisory Group	Member
FishServe Innovations NZ Ltd	Director
National Animal Identification and Tracing (NAIT) Limited	Director
Seafood Innovations Ltd	Director
Seafood Standards Council	Chair
TBfree New Zealand Limited	Director

F D Wilson	
Centralines Limited	Director
Hawke's Bay Regional Council	Councillor
National Animal Identification and Tracing (NAIT) Limited	Director
Oruru Land Company Ltd	Shareholder/Director
Predator Free New Zealand	Trustee
TBfree New Zealand Limited	Director
Wairoa Community Development Trust	Chairman

M E Pohio	
BNZ Partners, Waikato Region	Chairman
Panuku Development Auckland Limited	Director
Kiwirail Holdings Limited	Director
National Animal Identification and Tracing (NAIT) Limited	Director
National Institute of Water & Atmospheric Research Limited	Director
NIWA Vessel Management Limited	Director
Pohio Family Trust	Trustee
TBfree New Zealand Limited	Director
Te Atiawa Iwi Holdings Limited	Director
Te Atiawa (Taranaki) Holdings Limited	Director

J R Parsons	
AgFirst	Consultant
Ashgrove Genetics Limited	Director
Ashgrove Limited	Director
Beef+ Lamb Genetics Limited	Director
New Zealand Rural Leadership Trust	Trustee
Trevear Limited	Director

INDEMNITY AND INSURANCE

In accordance with section 162 of the Companies Act 1993 and the constitution of the company, OSPRI has continued to indemnify and insure its directors and officers, including directors of subsidiary and associated companies, against potential liability or costs incurred in any proceeding, excluding actions for gross negligence, criminal liability, breach of fiduciary duty or breach of directors' duties.

SUBSIDIARY COMPANY DIRECTORS

Currently all companies of the group share all directors in common. Directors' fees are paid by OSPRI and directors' costs allocated across the Group.

SUBSIDIARIES

The Group has the following subsidiaries:

Name	Holding	Principal Activity	Charity #
National Animal Identification and Tracing (NAIT) Ltd	100%	Implementing and maintaining the animal identification and tracing scheme	CC47735
TBfree New Zealand Ltd	100%	Implementation of the National Pest Management Plan for Bovine Tuberculosis	CC49248

Neither subsidiary is equity accounted as they are charitable entities. OSPRI will not receive any future tangible financial benefit from either subsidiary nor will OSPRI be entitled to any distributions on winding up.

STAKEHOLDERS' COUNCIL

The Stakeholder's Council performs the functions required of it by the constitution.

Its obligations during the 2017/18 year were:

- Approve the appointment or election of directors
- Recommend annual Board remuneration
- Convey the stakeholders view to the Board
- Review and comment on the Group's long term strategies, the annual budget and business plan, the half year and annual reports
- Consult on new funding and business opportunities and other specific projects that warrant consideration of the Board
- Consider and consult on constitution changes.

The Stakeholders' Council representatives during 2017/18 were:

Stakeholder	Representative
Beef + Lamb New Zealand	Andy Fox
Dairy Companies Association of New Zealand	Kevin Old
DairyNZ	Ian Brown
Deer Industry New Zealand	Dan Coup (interim Chair from December 2017)
Federated Farmers Dairy	Katie Milne
Federated Farmers Meat and Wool	Anders Crofoot (Chair, until December 2017)
	Miles Anderson (from February 2018)
Local Government New Zealand	Andrew Robb
Meat Industry Association of New Zealand	Tim Ritchie
Ministry for Primary Industries	Paul Dansted (to April 2018)
	Grant Bryden (from April 2018)
New Zealand Deer Farmers' Association	Paddy Boyd
New Zealand Stock and Station Agents' Association	No Member

SUMMARY CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 30 June 2018

CONSOLIDATED STATEMENT OF COMPREHENSIVE REVENUE AND EXPENSE

For the year ended 30 June 2018

In thousands of New Zealand Dollars	2018	2017
Revenue		
Revenue from non-exchange transactions	73,752	73,181
Revenue from exchange transactions	6,091	7,508
Total revenue	**79,843**	**80,689**
Expenditure		
NAIT operations	2,128	2,168
Contact centre and compliance	1,311	1,618
Pest control and management	37,573	36,507
Disease management and testing	13,865	13,577
Research	1,341	1,561
Business service support	10,154	11,654
Battle for our Birds	5,344	6,853
Total expenditure	**71,716**	**73,938**
Surplus before financing costs	8,127	6,751
Interest income	972	308
Surplus for the year	**9,099**	**7,059**
Total comprehensive revenue and expense for the year	**9,099**	**7,059**

These are summary financial statements. A copy of the full consolidated financial statements are available from OSPRI New Zealand Limited or on our website www.ospri.co.nz. The notes are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 30 June 2018

In thousands of New Zealand Dollars	Contributed capital	Retained earnings	Reserves	Total equity
Balance as at 1 July 2016	–	5,355	21,928	27,283
Changes in equity for 2017				
Total comprehensive revenue and expense for the year	–	7,059	–	7,059
Balance as at 30 June 2017	–	**12,414**	**21,928**	**34,342**
Changes in equity for 2018				
Total comprehensive revenue and expense for the year	–	9,099	–	9,099
Balance as at 30 June 2018	**–**	**21,513**	**21,928**	**43,441**

These are summary financial statements. A copy of the full consolidated financial statements are available from OSPRI New Zealand Limited or on our website www.ospri.co.nz. The notes are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 30 June 2018

In thousands of New Zealand Dollars	2018	2017
Assets		
Cash and cash equivalents	5,794	16,933
Term deposits	39,700	14,700
Receivables and other current assets	5,800	4,775
Current assets	**51,294**	**36,408**
Property, plant and equipment	666	734
Intangible assets	2,922	5,581
Non-current assets	**3,588**	**6,315**
Total assets	**54,882**	**42,723**
Liabilities		
Payables from exchange transactions and other liabilities	10,565	7,598
Employee benefits liability	727	764
Revenue received in advance	149	19
Current liabilities	**11,441**	**8,381**
Total liabilities	**11,441**	**8,381**
Equity		
Retained earnings	21,513	12,414
Reserves	21,928	21,928
Total equity	**43,441**	**34,342**
Total equity and liabilities	**54,882**	**42,723**

APPROVAL BY THE DIRECTORS

The Financial Statements were authorised on behalf of the OSPRI Board of Directors on 20 September 2018:

B S Harris
Chair of the Board

M E Pohio
Director

These are summary financial statements. A copy of the full consolidated financial statements are available from OSPRI New Zealand Limited or on our website www.ospri.co.nz. The notes are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 30 June 2018

In thousands of New Zealand Dollars	2018	2017
Cash flows from operating activities		
Revenue from operations	78,948	80,203
Cash paid to employees and suppliers	(65,760)	(70,115)
Net cash from/(used in) operating activities	**13,188**	**10,088**
Cash flows from investing activities		
Interest income	972	308
(Investment)/maturity of term deposits	(25,000)	(14,700)
(Purchase)/sale of property, plant and equipment	(181)	(23)
(Purchase)/sale of intangible assets	(119)	–
Net cash from/(used in) investing activities	**(24,327)**	**(14,415)**
Net increase in cash and cash equivalents	(11,139)	(4,327)
Cash and cash equivalents at 1 July	16,933	21,260
Cash and cash equivalents at 30 June	**5,794**	**16,933**

These are summary financial statements. A copy of the full consolidated financial statements are available from OSPRI New Zealand Limited or on our website www.ospri.co.nz. The notes are an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS

NOTE 1: BASIS OF PREPARATION – SUMMARY STATEMENTS

The summary financial statements have been prepared in accordance with, and comply with, New Zealand Generally Accepted Accounting practice (NZ GAAP) and NZFRS-43 *Summary Financial Statements*.

NOTE 2: BASIS OF PREPARATION – FULL STATEMENTS

This summary consolidated financial report does not provide the detail included in the full financial report, which has been prepared in accordance with NZ GAAP and complies with Tier 1 PBE Accounting Standards (Not-For-Profit). The specific disclosures included in the summary consolidated financial report have been extracted from the audited financial statements dated 20 September 2018. The audit opinion expressed was unqualified.

NOTE 3: ANNUAL REPORT

The full annual report is available on our website – **www.ospri.co.nz**

NOTE 4: SEGMENT INFORMATION

The OSPRI Group is organised and reports to its directors on the basis of three functional areas: the Parent (OSPRI New Zealand Limited) and both subsidiaries, National Identification and Tracing Limited (NAIT) and TBFree New Zealand Limited (TBFree).

Inter-segment allocations – expenses incurred by OSPRI on behalf of its subsidiaries are allocated across the two programmes on a proportional basis.

OPERATING STATEMENT SEGMENT INFORMATION

2018

In thousands of New Zealand Dollars	OSPRI	NAIT	TBfree	Elimination of inter-segment transactions	Group
Total operating income	6,091	7,998	65,754	–	79,843
Total operating expenditure	5,344	4,371	62,001	–	71,716
Net operating surplus/(deficit) for the year	747	3,627	3,753	–	8,127
Interest income	–	192	780	–	972
Total comprehensive revenue and expense for the year	747	3,819	4,533	-	9,099

OPERATING STATEMENT SEGMENT INFORMATION

2017

In thousands of New Zealand Dollars	OSPRI	NAIT	TBfree	Elimination of inter-segment transactions	Group
Total operating income	7,135	7,617	65,937	–	80,689
Total operating expenditure	6,853	4,160	62,925	–	73,938
Surplus/(deficit) before financing costs	282	3,457	3,012	–	6,751
Interest income	–	111	197	–	308
Total comprehensive revenue and expense for the year	282	3,568	3,209	–	7,059

BALANCE SHEET SEGMENT INFORMATION

2018

In thousands of New Zealand Dollars	OSPRI	NAIT	TBfree	Elimination of inter-segment transactions	Group
Total assets	3,023	17,783	36,038	(1,962)	54,882
Total liabilities	1,505	690	11,208	(1,962)	11,441
Total equity	1,518	17,093	24,830	–	43,441

2017

In thousands of New Zealand Dollars	OSPRI	NAIT	TBfree	Elimination of inter-segment transactions	Group
Total assets	2,788	15,251	28,919	(4,235)	42,723
Total liabilities	2,017	1,977	8,622	(4,235)	8,381
Total equity	771	13,274	20,297	-	34,342

KPMG

Independent Auditor's Report

To the shareholders of OSPRI New Zealand Limited

Report on the summary consolidated financial statements

Opinion

In our opinion, the accompanying summary consolidated financial statements of OSPRI New Zealand Limited (the company) and its subsidiaries (the group) on pages 78 to 83:

i. Has been correctly derived from the audited Group financial statements for the year ended on that date; and

ii. Is a fair summary of the Group financial statements, in accordance with PBE FRS 43 Summary Financial Statements.

The accompanying summary consolidated financial statements comprises:

— the summary consolidated statement of financial position as at 30 June 2018;

— the summary consolidated statements of comprehensive revenue and expense, changes in equity and cash flows for the year then ended; and

— notes, including a summary of significant accounting policies and other explanatory information.

Basis for opinion

We conducted our audit in accordance with International Standard on Auditing (New Zealand) (ISA (NZ)) 810 (Revised), *Engagements to Report on Summary Financial Statements*.

Other than in our capacity as auditor we have no relationship with, or interests in, the group.

Use of this Independent Auditor's Report

This report is made solely to the shareholders as a body. Our audit work has been undertaken so that we might state to the shareholders those matters we are required to state to them in the Independent Auditor's Report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the shareholders as a body for our audit work, this report, or any of the opinions we have formed.

Responsibilities of the Directors for the summary Consolidated Financial Statements

The Directors, on behalf of the company, are responsible for:

— the preparation and fair presentation of the summary consolidated financial statements in accordance with PBE FRS 43 Summary Financial Statements; and

— implementing necessary internal control to enable the preparation of a summary consolidated set of financial statements that is correctly derived from the audited consolidated financial statements.

KPMG

Auditor's Responsibilities for the summary Consolidated Financial Statements

Our responsibility is to express an opinion on whether the summary consolidated financial statements are consistent, in all material respects, with (or are a fair summary of) the audited consolidated financial statements based on our procedures, which were conducted in accordance with International Standard on Auditing (New Zealand) (ISA (NZ)) 810 (Revised), *Engagements to Report on Summary Financial Statements*.

We expressed an unmodified audit opinion on the consolidated financial statements in our audit report dated 20 September 2018.

The summary consolidated financial statements do not contain all the disclosures required for a full set of consolidated financial statements under generally accepted accounting practice in New Zealand. Reading the summary consolidated financial statements, therefore, is not a substitute for reading the audited consolidated financial statements of the group.

KPMG

Wellington

20 September 2018

DIRECTOR PROFILES

As at 30 June 2018

BARRY HARRIS

Barry is a company director with extensive governance and executive experience. Barry has held a number of chief executive roles, including with Environment Waikato, Greater Wellington Regional Council and Hamilton City Council. He was also a senior executive with Fonterra for five years. Barry is currently chairman of McFall Fuel, Food Waikato, and Wintec; and director of DairyNZ. Previous boards have included Agricultural Service Limited, NZ Food Innovation Network, Primary ITO, CentrePort, RD1, International Nutritionals, Hamilton Riverside Hotels, and Local Authority Shared Services. Barry has a Master of Agricultural Science (Honours) and lives in Hamilton.

LESLEY CAMPBELL

Lesley has more than 20 years' experience in the primary production sector. She brings vast experience in working with government agencies and ministers, and an ability to lead change and manage diverse and complex industry stakeholder interests. Lesley is currently the Chief Executive of Commercial Fisheries Services Limited (FishServe) and is also a director of Seafood Innovations Limited, FINNZ, a subsidiary consulting company of FishServe, and Chair of the Seafood Standards Council. Lesley's areas of expertise include strategic and business planning, budgeting, cost recovery processes, policy development and preparation of legislation, and converting legislation into operational systems.

FENTON WILSON

Fenton enjoys a range of governance roles as well as farming in Wairoa with wife Sue. As a former member of the Stakeholders' Council and now director he has been involved with OSPRI for seven years. He is also a director of Centralines, a trustee of Predator Free NZ and the Wairoa representative on the Hawke's Bay Regional Council. He is particularly looking forward to implementing the recommendations of the NAIT review as the system will then work smarter for NZ farmers.

MIKE POHIO

Mike is a Hamilton-based director. Mike currently holds directorships on the boards of Panuku Development Auckland, Kiwirail, NIWA and Te Atiawa Iwi Holdings. He is also Chairman of BNZ Partners, Waikato Region. His executive career includes CEO of Tainui Group Holdings for eight years and senior executive roles for companies including Port of Tauranga, Fonterra, NZ Dairy Group and Elders Pastoral. His governance background includes six years as a shareholder and director of NZL Group Ltd, seven years on the Transpower Board and a Ministerial appointment to the University of Waikato Council. Mike holds an MBA from IMD, Lausanne and an FCA from the Chartered Accountants Australia & New Zealand.

JAMES PARSONS

James farms sheep and beef in Dargaville, Northland and has extensive agri-business and rural sector leadership experience. James is a director of Beef + Lamb Genetics, a trustee of the New Zealand Rural Leadership Trust which manages the Nuffield and Kellogg Scholarship programmes and is a 2008 Nuffield Farming Scholar himself. He is the majority shareholder and managing director of the family sheep and beef farming business Ashgrove Ltd which breeds and provides sheep genetics to clients around the North Island. James is also the former chairman of Beef + Lamb New Zealand and the New Zealand Meat Board and has held directorships in economic development, the veterinary sector and the electricity sector as a lines company and geothermal power company director. His governance capacity is complimented by particular skills in strategy, stakeholder management, media and government relationships, yet brings practical farming perspectives to governance decisions.

OSPRI LEADERSHIP TEAM

MICHELLE EDGE

Chief Executive

MATTHEW HALL

Chief Operating Officer

KEVIN CREWS

Head of Programme
(Disease Management)

BARIS KAVALALI

Head of Programme
(Traceability)

SUZANNE RIDDLE

Head of HR and Administration

GREG GRANT

Head of Finance