OSPRI

OSPRI ANNUAL REPORT
TBfree RESEARCH & DISEASE CONTROL REPORT

Our first year | 2013/2014

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

OSPRI New Zealand's shareholders are:

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

Ministry for Primary Industries
DairyNZ
Beef + Lamb New Zealand
Deer Industry New Zealand
New Zealand Deer Farmers Association
Federated Farmers Dairy
Federated Farmers Meat and Fibre
Meat Industry Association New Zealand
Dairy Companies Association of New Zealand
Local Government New Zealand
New Zealand Stock & Station Agents Association

Targeted aerial operations play a key role in eradicating TB from hard to access terrain.

Report from the Chair and Chief Executive

We're pleased to report on a very satisfying first year. We're on the way to realising the benefits that our shareholders – DairyNZ, Beef+Lamb and Deer Industry NZ – and a wide range of stakeholders expected in supporting OSPRI's existence.

JEFF GRANT
CHAIR

WILLIAM McCOOK
CHIEF EXECUTIVE

Bringing any two organisations together has challenges, so our early success – joining NAIT and the Animal Health Board – is a positive reflection on the effort of many people.

Our staff have answered the call for fresh thinking to ensure the sum of our activity is greater than the previous parts. Our shareholders and key stakeholders have provided significant support, while laying down a healthy challenge for ongoing improvement.

We'd also like to take this opportunity to thank our two out-going Directors, Michael Spaans and Andrew Coleman, for their important contribution during a critical period in OSPRI's formation.

Our stakeholder engagement remains extensive and is a top priority for further improvement ahead. We are grateful for the advice and support from our various committees, and for the important oversight role played by the Stakeholders' Council. Through these relationships, we have a high level of connectivity with stakeholders and a significant positive influence on our work.

Some of our biggest gains through the year were made in NAIT, our nationwide traceability system for cattle and deer. We have listened to farmer concerns and made a number of changes, including improved notifications and making the system easier to use. We are also now able to record animal treatments, underscoring NAIT's potential to hold new information to assist supply chains and enhance consumer confidence. NAIT's animal movement data is also assisting investigations of TB breakdowns, and farmers are increasingly using NAIT tags to help improve on-farm productivity.

Our latest survey shows significant increase in farmer knowledge of, and compliance with, NAIT. While there is much to do, this is a pleasing result.

The TBfree programme also had a strong year. With close to 830,000 hectares now declared free of bovine TB since the plan was adopted (2011), we are rising to the challenge set by funders and proving that the disease, along with its wide-ranging impacts, can be eradicated. But we must not become complacent – we have significant work to do.

Working closely with funders, we've also made real head-way reviewing how the TBfree programme should be funded. Everyone agrees that we need a principle-based methodology to improve funding security and ensure funding shares are based on sound, transparent logic. This important work continues and we appreciate the ongoing effort of all involved. We will also shortly commence a review of the TBfree programme overall to ensure the best possible plans and approaches are in place.

Expected cost savings from the merger have been achieved and we're now exploring a number of new opportunities. With a wide range of transferrable skills capable of broader application, we feel confident that OSPRI's future is bright.

Having learnt a lot in year one, we'll also soon improve how we describe and present OSPRI. This will further improve staff alignment and bring a wider understanding of our potential, including to better publicise our significant operations management and information system capability. We look forward to sharing our story with you soon.

We're grateful to all of our staff and stakeholders for the contribution made to our progress and early success. We'll continue to work hard to ensure we maximise our contribution to the success of New Zealand's primary industries.

Jeff Grant
Chair

William McCook
Chief Executive

Stakeholders' Council Report

After a busy time helping with OSPRI's commencement, the Stakeholders' Council had a quieter 2013/14 year as both OSPRI and the Council found their feet. In the year ahead, we will further improve our understanding of how the Council and OSPRI can work together better.

ANDERS CROFOOT
CHAIR, STAKEHOLDERS' COUNCIL

On the whole, the Council is pleased with the progress OSPRI is making. We engaged with the OSPRI Board and management over the year and received timely information about OSPRI's key performance data.

The Council met three times prior to the Special General Meeting last November. At that time, we approved the formal addition of the NZ Stock & Station Agents Association to the Council, set meeting dates for the coming year, and received an update on NAIT and TBfree activities. Ken Shirley from the Road Transport Forum NZ also attended the meeting and agreed to help facilitate ongoing communication between the trucking industry and NAIT.

At our April meeting in Christchurch, there was a briefing on NAIT and TBfree half-year reports, along with discussion of NAIT compliance targets (raised by the NZ Stock & Station Agents Association); setting up more defined protocols for animal owner access to NAIT data; and the possible expansion of OSPRI activities beyond TBfree and NAIT.

We were also notified of the replacement of Director Michael Spaans with Barry Harris, and there was discussion about the Director appointment process more generally. We also had a joint meeting with the TBfree committee chairs, which was useful to get a better understand-ing of respective roles and issues.

In June we met in Wellington and reviewed the OSPRI draft budget and proposed charging framework for access to NAIT data. We also discussed Director appointments.

OSPRI as a new organisation continues to perform well. The combined call centre has been fielding almost 700 calls a day. TBfree is already a third of the way toward the 2.5 million hectare eradication goal by 2026. NAIT has completed the second of its three-year implementation phase. The large majority of animals arriving at saleyards and processors are tagged – a good result – however, the recording of farm-to-farm movements is an area requiring ongoing focus and improvement. A reduction of 50 cents to the slaughter levy was also implemented.

The Council looks forward to a productive second year ahead.

Anders Crofoot
Chair, Stakeholders' Council

Highlights

SUCCESSFUL MERGER OF NAIT AND AHB

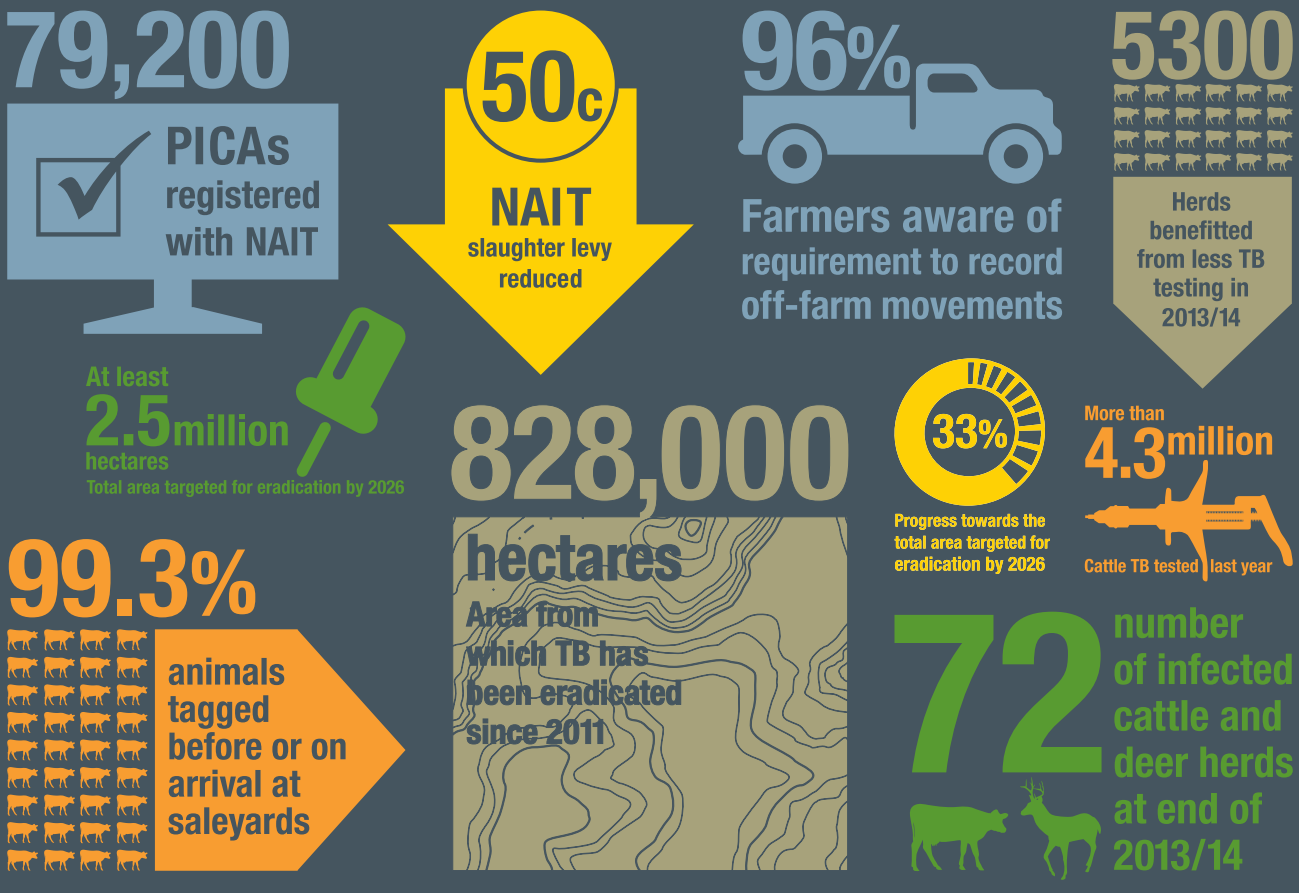
- All Wellington staff now under one roof and new structure in place
- Expected cost savings from the merger have been achieved
- Combined contact centre offering improved service
- Over 160,000 conversations with farmers and landowners
- Successful transition of information technology and systems
- TBfree using NAIT to help trace and manage infected herds and animals
- Company-wide values developed and launched
- Wide range of policies and procedures optimised for OSPRI
- New committee structure to ensure greater stakeholder engagement

TBFREE AHEAD OF TARGET

- 2.5 million hectares targeted for eradication by 2026
- 828,000 hectares already TB free after three years (greater than 33% of target)
- Over 4500 field operations
- 4.3 million cattle and 177,000 deer tested for TB
- Only 72 infected herds at year end (78% decrease since 2004)
- New funding model significantly advanced

NAIT MAKING GOOD PROGRESS, BUT STILL WORK TO DO

- Year two of three year transition programme
- 14% rise in farmer registrations – 79,200 registered at year end
- 70% rise in animals registered in the national herd – from 38% to 65% at year end.
- 96% of farmers know they need to record off-farm movements
- 99.3% of animals tagged before arriving (or on arrival) at saleyards
- 95.2% of animals (monthly average) arrived at meat processors with tags
- 50 cent reduction in the NAIT slaughter levy
- Improved usability of NAIT interface to make animal registrations and movements easier



Director Profiles

JEFF GRANT, CHAIR

Jeff farms sheep and deer at Balfour in Southland and has extensive agribusiness and rural sector leadership experience. Jeff is also Chairman of the Milford Sound Development Authority and Mount Linton Station and Director of SBS Bank, Finance Now and AgResearch. He was a former Chairman of the New Zealand Meat Board, Meat and Wool New Zealand (now Beef + Lamb), and the Primary Industry Council. He has also served as a Member of Parliament.

TED COATS

Ted is a dairy farmer originally from Waikato, with wide dairy-sector interests and experience. He now lives just north of Wellington. He is former Chairman of the NAIT Board, and a board member of New Zealand Animal Evaluation Limited. Ted was a Director of Livestock Improvement Corporation and Dairy InSight and went on to be a board member for DairyNZ after the InSight/Dexcel merger. Ted also served as a board member to the previous Animal Health Board.

LESLEY CAMPBELL

Lesley has more than 20 years' experience in the primary production sector. She brings her vast experience working with government agencies and ministers, and her ability to lead change and manage diverse and complex industry stakeholder interests. Lesley is currently the Chief Executive of the Commercial Fisheries Services Limited (FishServe) and is also a Director of FINNZ, a subsidiary consulting company of FishServe. 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.

KEITH SUTTON

Keith is a Director of Sutton McCarthy Limited, which provides strategic, financial and treasury advice to corporates, SOEs, multinationals and other clients. He is Chairman of Taranaki Investment Management Limited, a Director of Gough Group Limited, Wellington International Airport Limited, Sealord Group Limited, Wools of New Zealand Limited and a number of other companies. Keith is a former Chairman of the New Zealand Futures and Options Exchange Limited, Executive Director of DFC New Zealand Limited and former member of the National Provident Fund Board. He has farming and forestry interests and is also a member of the Institute of Directors and the Institute of Finance Professionals. He holds a Bachelor of Commerce and Administration degree in Economics and Accounting.

MICHAEL SPAANS
UNTIL 30 JUNE 2014

Elected to the Fonterra Board in 2013, Michael is also Chairman of Waikato innovation Park and its subsidiary, New Zealand Food Innovation (Waikato) Ltd. He is a Director of DairyNZ, Manuka SA (Chile) and Shoof International Ltd. Michael's family farm is in Waikato, near Te Aroha, where he milks a herd of nearly 500 cows. He was the DairyNZ appointed director to OSPRI in 2013/14.
(Resigned as a director effective 1 July 2014)

ANDREW COLEMAN
UNTIL 30 JUNE 2014

Andrew is the Chief Operations Officer for the Ministry for Primary Industries (MPI). He joined the Ministry of Fisheries as National Manager Compliance in July 2008 and in October 2009 took up the position of Deputy Chief Executive Field Operations. Prior to joining the Ministry of Fisheries, Andrew spent 10 years in the New Zealand Customs Service where he was most recently Group Manager Intelligence, Planning and Co-ordination. Before this, he spent 20 years in the New Zealand Police in various roles, including Detective Sergeant and Inspector. His experience is in organisational strategy, operational business planning and service delivery with a focus on intelligence and education.
(Resigned as a director effective 1 July 2014)

BARRY HARRIS
FROM 1 JULY 2014

Barry Harris is a company director with extensive governance and executive experience. Barry has held a number of chief executive roles, including Environment Waikato, Greater Wellington Regional Council and Hamilton City Council. He was also a senior executive with Fonterra for five years. Barry is currently Deputy Chair of AgResearch, a Crown Research Institute, and Director of DairyNZ, Primary ITO and WEL Networks. Previous boards include CentrePort; RD1; International Nutritionals; Hamilton Riverside Hotels and Local Authority Shared Services. Barry has a Masters of Agricultural Science (Honours) and lives in Hamilton.
(Appointed as a director from 1 July 2014)

Image courtesy of The NZ Story

Regular conversations with farmers keep us in touch with what's happening in the field, and help shape our decision making.

OSPRI One year on

Our first year has been one of consolidation. We've focused on bringing two organisations together to galvanise staff around a common purpose and create a solid foundation for delivering further value to our shareholders.

OUR PEOPLE

The combined OSPRI team now numbers almost 160 and is spread across eight offices, from Hamilton to Gore. Our regional presence allows us to operate NAIT and TBfree more effectively, providing farmers and landowners with timely advice and services.

A merger can be an unsettling and challenging time for staff. We are grateful to our staff for their positive focus through this period, which led to OSPRI finding its feet in a relatively short time. Since OSPRI's inception, we've focused on further building our team to meet the current and future challenges of our core programmes, while also keeping an eye on capability requirements for future initiatives.

OUR VALUES

We know the significance of values and organisational culture to business performance. To assist the formation of OSPRI, and shape a new organisational culture, we worked closely with our staff to develop new values. The values we chose – Engage, Take the Initiative, Rigorous, Responsible and Customer-focused – reflect the behaviours we think are most important to driving OSPRI's success as a new organisation.

CUSTOMER-FOCUSED SERVICE

Bringing the NAIT and TBfree contact centres together has significantly increased the number of conversations we had (now totalling around 160,000) with our customers in the last year. We've created a one-stop information shop on NAIT and TBfree and our staff are continually striving to improve farmers' experience in dealing with OSPRI and its programmes.

We've also made significant enhancements to the NAIT email notification service, including better targeting notifications and making it easier for farmers to record animal movements. Further improvements are currently being worked on. We know that the easier we make the system to use, the more farmers will use it and the more painless they'll find compliance obligations.

ENGAGING WITH STAKEHOLDERS

Our goal is to build collaborative, enduring relationships that enable an open, constructive exchange of information and ideas. While our engagement is extensive, we don't always get it right and accept the general feedback we've received to prioritise further improvement.

In the past year we've embedded new committee arrangements to ensure even higher stakeholder connectivity with our work and more collaborative decision making.

The Stakeholders' Council, established under our Constitution, has provided important oversight of our performance. With both OSPRI and the Council being new, we are still working out how best to use the Council. We will explore this further with the Council to ensure we are meeting their information needs and taking advantage of their experience and expertise.

We reviewed the previous TBfree Committee structure during the year, resulting in the formation of combined OSPRI committees to discuss, at farmer level, issues across our full ambit of work. In areas where significant TB issues arise, smaller regional TBfree committees meet to provide assistance at local level.

Two stakeholder committees have also been established to provide feedback and technical and policy input for TBfree and NAIT. The Stakeholder NAIT Advisory Group (SNAG) is focused on operational and implementation issues currently facing NAIT. The Strategy Technical Advisory Group (STAG) is focused on assisting delivery of the TBfree programme, and will also assist the review of that programme in the near future.

During the year we also had extensive stakeholder involvement in the review of the funding methodology for TBfree, discussed further on page 23.

DELIVERING VALUE THROUGH INFORMATION SYSTEMS AND TECHNOLOGY

Feedback suggests that most people under-estimate the extensive technology and systems that sit behind our programmes. During the year we completed in-house system development work on an enhanced disease management system which will support more effective delivery of the TBfree programme at lower cost. This project, which is already nominated for key industry awards, also provides us with greater flexibility to manage other diseases given the flexible and modular nature of the system build.

We'll be looking at how we can apply our systems, technology and associated assessment tools to other opportunities. Given the major capital investments made by our funders and stakeholders in these areas, it makes good sense to ensure our growing capabilities are put to wider use with the benefit of reducing the costs of core programmes for funders over time.

HEALTH AND SAFETY

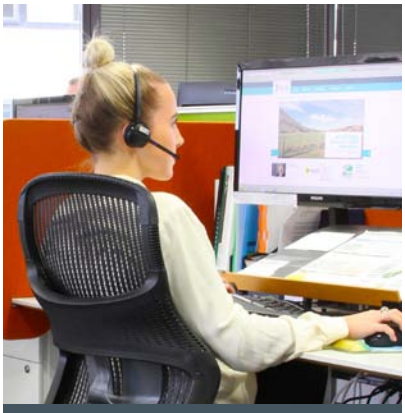
Any organisation that has people working outdoors, let alone in many of the extreme conditions our people work in, needs to be vigilant about health and safety. We've worked hard over the last year to update our health and safety policies and adopt a comprehensive strategy to guide our effort.

We undertook extensive work during the year with more than 1000 contractors – resulting to date in a 65% increase in reporting – and placed considerable emphasis internally on collective responsibility and action for health and safety. Our goal is to reduce the number of lost time injuries by 25% over the next three years.

OSPRI'S FUTURE

While strongly focused on ongoing improvements in NAIT and TBfree, OSPRI is also well-positioned to provide new services to add greater value to primary industries.

A key part of OSPRI's role is to safeguard New Zealand's reputation as an exceptional primary producer on the world stage, where product integrity and market assurance are increasingly important. These issues, related to both risk-management and market opportunities, often require a coordinated New Zealand approach. OSPRI is well-placed to play a key role in such initiatives, given a wide range of transferable strengths; a track record of leading government-industry programmes; and pan-industry ownership (including scope to assist other primary industries). Our strengths include farmer connectivity; attribute traceability; animal disease management; pest control; operations management; flexible information systems; and leveraging data.



FROM CALL CENTRE TO RESEARCH TO FARM, OUR PEOPLE ARE PASSIONATE AND FOCUSED ON HELPING PROTECT FARMERS, BIODIVERSITY, AND ULTIMATELY OUR EXPORT REPUTATION.

Image courtesy of The NZ Story

"We are now, more than ever, under scrutiny by an increasing range of diverse customers. It is vitally important that we respond by providing increasing assurance around food safety and traceability. NAIT is a vital component in providing this assurance."

MIKE PETERSON, NZ SPECIAL AGRICULTURAL TRADE ENVOY

NAIT

WE SET OUT TO...

- Increase awareness and acceptance of the scheme
- Increase compliance
- Make it easier for farmers to use the system

THE RESULTS...

- 100% awareness of NAIT (UMR 2014)
- 91% of farmers know what they need to do to be compliant (UMR 2014)
- 14% increase in number of farmers registered
- 70% increase in number of animals registered
- 99.3% of animals tagged before or on arrival at saleyards
- 96% of all animals arrived at meat processors tagged (on average each month)
- Significant enhancements to system including fewer, more targeted email notifications, action reminder notifications and a simpler user interface.

HOW NAIT IS TRACKING

NAIT's second year of operations has seen a real increase in both awareness and acceptance of the programme. Over 91% of farmers recently surveyed know what they need to do and there are high levels of required activity in most aspects of the programme.

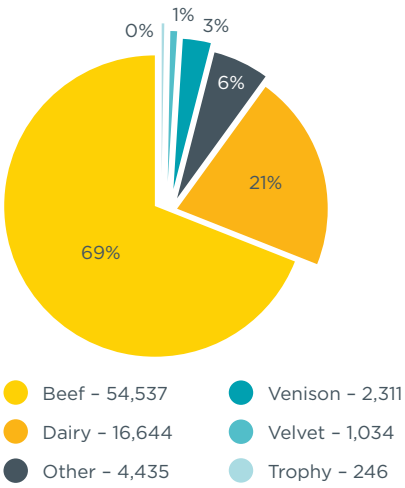
The number of registered people in charge of animals (PICAs) is up 14% on last year and now sits at more than 79,000. There has also been a sharp rise in the number of animals registered as a percentage of the estimated national herd - up from 38% to 65%.

We've seen a significant increase in animal movements being recorded at both saleyards and meat processing plants, with more than 80% of saleyard movements and over 88% of movements to meat processors recorded within a three day timeframe. We're well on the way to achieving our target by the end of our three year transition period.

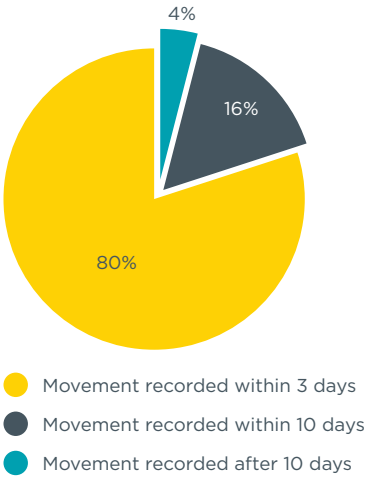
Steady improvements have been made in the recording of all farm-to-farm movements, including dairy grazing; however there's still a long way to go. Helping farmers improve the recording of farm-to-farm movements remains a priority. You can expect to see a number of new initiatives to help drive this, including checking animal movement records with the transport industry and better training for farmers on the NAIT system.

Tagging animals and registering (activating) those tags is critical to the success of NAIT and to New Zealand's ability to offer lifetime traceability. This means tagging animals within six months of birth or before their first off-farm movement. Unfortunately, some farmers are resisting

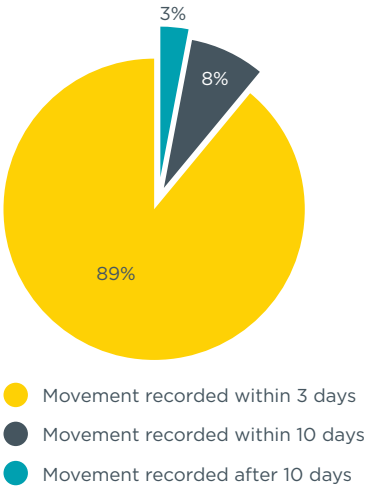
Farmers registered by industry



Saleyard movements



Meat processor movements



the requirement to tag young animals and are leaving it until immediately before the animals leave the property. This means that location data is not available for these animals until they are killed, undermining key benefits of NAIT.

An increase in the number of animals arriving at meat processors with tags – now at over 95% – has led to a marked decline in the impractical-to-tag (ITT) levy.

For many, NAIT is becoming second nature and, while there's still much work to do, we're confident we're making good progress further embedding the system.

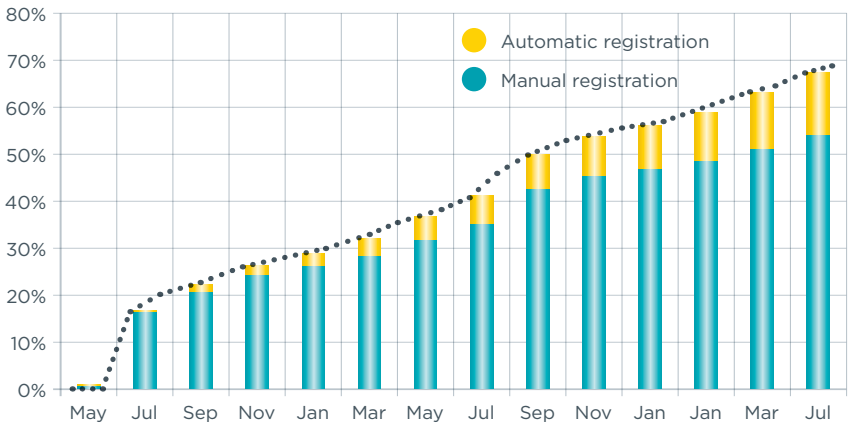
MAKING NAIT EASIER TO USE

We've made significant improvements to the NAIT system to make it easier for farmers to use and comply. In response to feedback, we targeted and simplified the email notifications so they provide clear, concise and helpful information for farmers, including reminders about actions they need to take. These changes have resulted in higher levels of overall compliance. A key change was making it easier to confirm the receipt of stock, which has led to a decrease in pending movements – 80% of all movements created in 2013/14 were confirmed and 79% of farmers surveyed said that these changes made the system easier to use.

These system enhancements have been supported by an ongoing training and education programme. This will be given even greater priority in the year ahead, including collaborative work with other organisations.

We've also improved alignment between the TBfree and NAIT databases. This has greatly enhanced the way TB breakdowns are monitored and managed using NAIT data.

National herd registered



Outside the compliance requirements of NAIT, integration of NAIT tags with on-farm productivity applications is providing added benefit to many farmers, reinforcing NAIT's wider value and potential.

REDUCING THE COST OF COMPLIANCE

In March 2014, the NAIT slaughter levy for cattle was halved from $1 to 50 cents per tagged carcass. This reflects NAIT's intention to reduce costs to farmers as soon as possible and only recover what is needed to operate, maintain and enhance the system.

Further funding work is planned for the coming year to ensure the best possible arrangements are in place. As we have done this year for TBfree funding work, we will work closely with funders and key stakeholders in carrying out NAIT funding work.

MOVING FORWARD

While awareness and acceptance of NAIT has markedly increased, there are still areas that need improvement. A working group has been set up to identify specific initiatives that will help us achieve our objectives for year three. We will seek to improve compliance in farm-to-farm movements; animal registrations (or tag activations); and pending movements – with a focus on communications and education, use of on-farm technology, compliance incentives and better use of data.

NAIT DATA ACCESS PANEL ANNUAL REPORT

The NAIT Data Access Panel held three meetings and received two applications during the year. No conditions were placed on the applications for which data was granted and no complaints were received by the Panel.

1. Dairy industry animal welfare modelling

Request:
Animal registration and movement information

Determination:
Declined without consent from individuals concerned

2. Regional water planning

Request:
Number of animals per farm or water catchment in region

Determination:
Granted at water catchment level


TBfree

Millions of data points around New Zealand supply key information to enable better decisions on location and intensity of possum control.

TBfree

WE SET OUT TO...

- Eradicate TB from at least 2.5 million hectares by 2026
- Keep Vector Free Areas (areas without TB infected wildlife) free of TB
- Keep infected herd numbers as low as possible
- Prove that eradication is possible ('proof of concept')

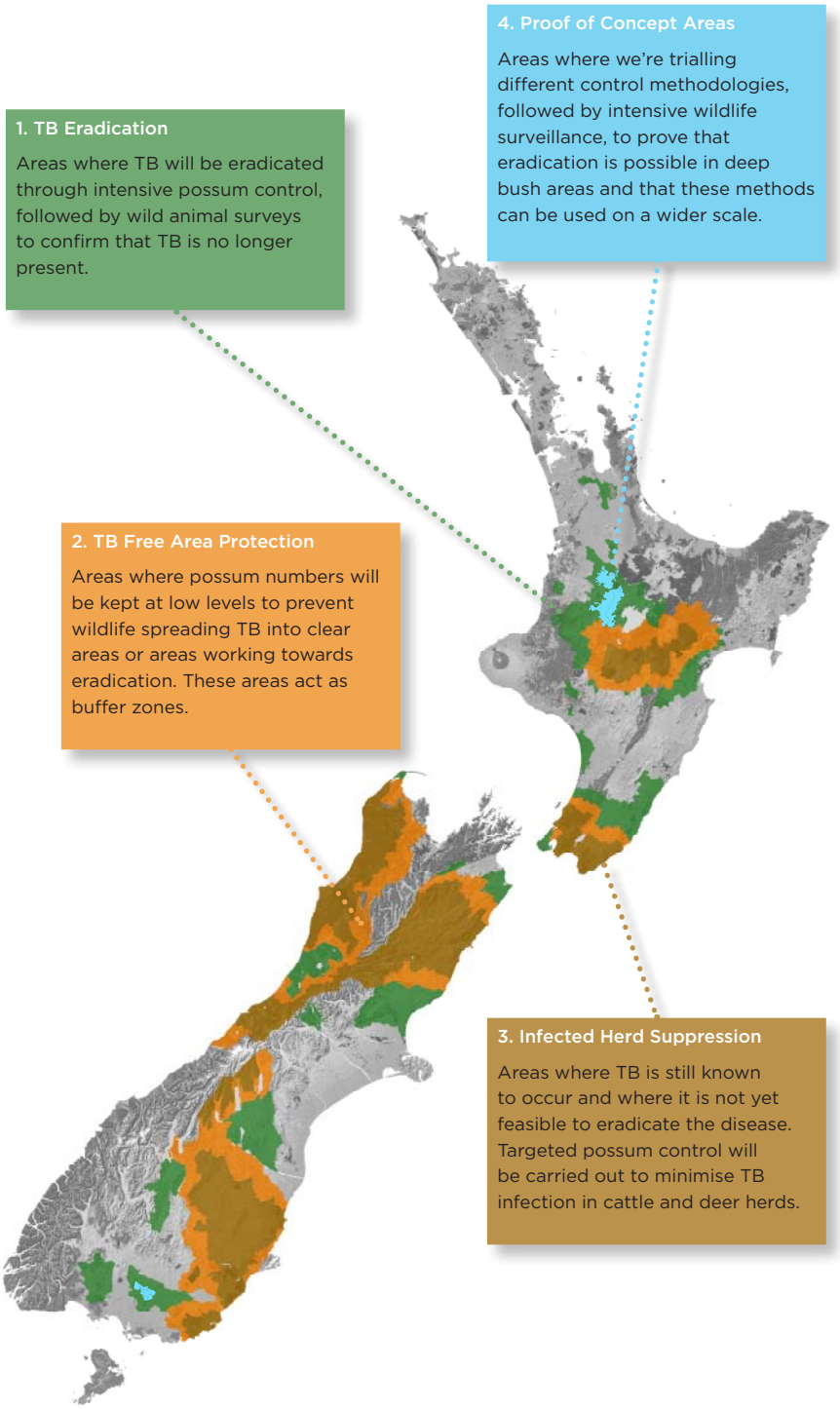
THE RESULTS...

- TB eradicated from almost 830,000 hectares (33% of total)
- No wildlife infection was established in any Vector Free Area
- Only 72 infected herds at year end (down from 91 in 2012/13)
- On track for eradication in Hokonui, Huahungaroa and Rangitoto Ranges, our Proof of Concept areas

TBfree New Zealand manages the National Bovine Tuberculosis Pest Management Plan, which aims to eradicate the disease from wild animals and control infection levels in cattle and deer herds. This is critical for protecting the productivity of our beef, dairy and deer farms and the reputation of these multi-billion dollar industries. The plan, set in 2011, has four main goals discussed opposite.

To make the best possible progress towards our goals, we have prioritised certain areas for progressive eradication, while preventing disease spread and limiting herd infection rates elsewhere. These choices are shown on the map.

Plan for progressive eradication – what we do where



UPDATE ON THE PLAN'S 4 GOALS

1. ERADICATION

The plan requires us to eradicate TB from possums and other wildlife – in "Vector Risk Areas" – across at least 2.5 million hectares by 2026.

Vector Risk Areas are areas of New Zealand where TB exists in wildlife. At the beginning of the plan period this totalled 10 million hectares.

We've made great progress since the plan started three years ago. We've already eradicated TB from nearly 830,000 hectares – or 33% of our total goal – including 306,000 hectares in the last year.

During the year, we decreased the total number of Vector Risk Areas from 18 to 17. This included the complete eradication of TB from wildlife in the Whareorino VRA, one of nine small VRAs identified in the plan. The combined area of the remaining Vector Risk Areas is 9.3 million hectares.

2. KEEPING VECTOR FREE AREAS FREE OF TB

The plan requires us to keep "Vector Free Areas" free from TB-infected wildlife.

To keep disease out of areas that are free of TB, we establish buffer zones around risk areas and carry out routine TB testing and wildlife monitoring to ensure the disease doesn't spread. During the year, we had complete success, as TB did not spread to wild animal populations in Vector Free Areas, and areas where the disease has been eradicated remain free of infected wild animals.

3. LIMITING THE NUMBER OF INFECTED HERDS

The plan requires us to limit the annual TB infected herd prevalence rate to less than 0.4%.

There were only 69 infected cattle herds in 2013/14, down from 87 the previous year. For deer, there were three infected herds.

Since 2002, we've seen the number of infected cattle herds fall by 81% and the number of infected deer herds by 96% (see long-term trend graphs on pages 65 and 67).

The national infected herd prevalence rate for the year was 0.21%. Before New Zealand can be officially declared free of TB, it must reduce its infected herd prevalence rate to less than 0.2% and maintain this level for at least three consecutive years. In order to retain this progress in infected herd levels, it is important to eradicate the disease from possums as this remains the primary source of infection.

During the year, we also cleared the majority of herds that were infected during 2012/13 (a year that experienced an increase in infected herds, primarily due to infections in dairy herds in Vector Free Areas).

4. ERADICATING TB FROM DIFFICULT TERRAIN (PROOF OF CONCEPT)

The plan requires us to prove that TB can be eradicated from wildlife in challenging areas.

'Proof of Concept' is all about proving that TB can be successfully eradicated from wildlife in the long term, even from difficult terrain. Once TB is eradicated from possums, it will die out in other wild animals, such as ferrets and wild pigs.

The agreed plan set two Proof of Concept areas – Hokonui Hills in Southland, and the northern Hauhungaroa and Rangitoto ranges close to Lake Taupo. These areas have deep forest with long histories of TB in possums and other wildlife – and were chosen to test eradication where it is likely to be most challenging.

We're taking differing approaches to eradication in each area. In the Hokonui Hills we're undertaking established and well-tested aerial possum control methods over a forested area of about 9,500 hectares. The larger Hauhungaroa and Rangitoto area (110,000 hectares combined) is divided into different management approaches, where new aerial baiting methods are being compared. The aim of this research is to reduce bait application rates, while maintaining effective possum control. Following the control programme intensive wildlife surveillance is completed to assess the probability of TB being eradicated.

There was a slight shortfall in progress for both areas due to decisions to carry out some operations in 2014/15 instead of the previous year. This operational timing decision has no impact on the overall progress of the programme.

KEY ACTIVITY UPDATE

Disease Control Areas (DCAs) and TB Testing

Based on the risk of infection, areas are categorised into various livestock TB testing requirements – Movement Control Areas (MCAs), Special Testing Areas (STAs) and Surveillance Areas – as shown in the Disease Control Areas map. More than 4.46 million cattle and deer were TB tested during the year.

Pest control

Pest control is a key part of both eradication and control. During the year, we used a mix of aerial and ground operations as shown in the map opposite.

Using NAIT to fight TB

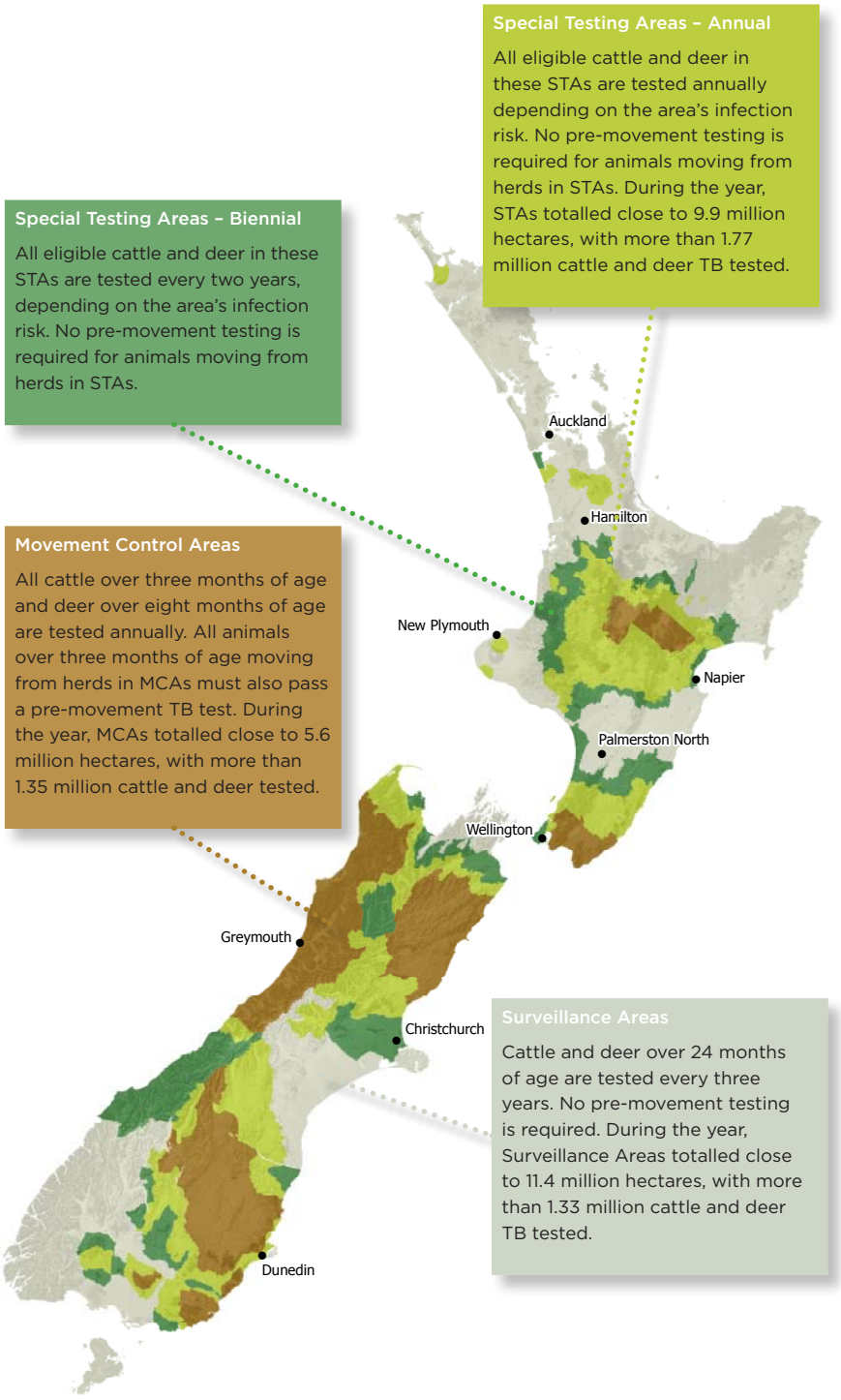
The NAIT database was valuable in tracing animals and identifying sources of herd infection in Vector Free Areas. A software tool has been developed to assist in tracing cattle movements to and from newly infected herds. This tool is able to combine movement data with herd disease information and has resulted in significant improvement in our capability to trace sources of infection and determine potential risks for herds that have received movements of risk animals.

Disease control contracts

The success of the programme relies on close co-operation with our contracted cattle testing organisations. New testing contracts with AsureQuality and Veterinary Enterprises Group came into effect during the year.

Deer testing is paid for directly by deer farmers (with reimbursement for some testing costs) and is delivered by accredited TB testers, including from veterinary practices. The deer testing programme is

Disease Control Areas (DCAs)



managed and administered by OSPRI's contact centre.

During the year, two contractors provided infected herd case management services – Buller Vets and Sonya Shaw in the Westland, Grey, Buller and Tasman districts. Elsewhere, case management was by our own veterinarians.

Contracts for laboratory services for the year were provided by AgResearch (cattle blood-testing diagnostics, culturing and DNA typing), Gribbles Veterinary Pathology (histology), Otakaro Pathways with Canterbury Health (PCR) and the Disease Research Laboratory (deer blood-testing diagnostics). Compliance with the requirements for movement control and completion of Animal Status Declaration (ASD) forms at livestock saleyards was monitored under contract by AsureQuality.

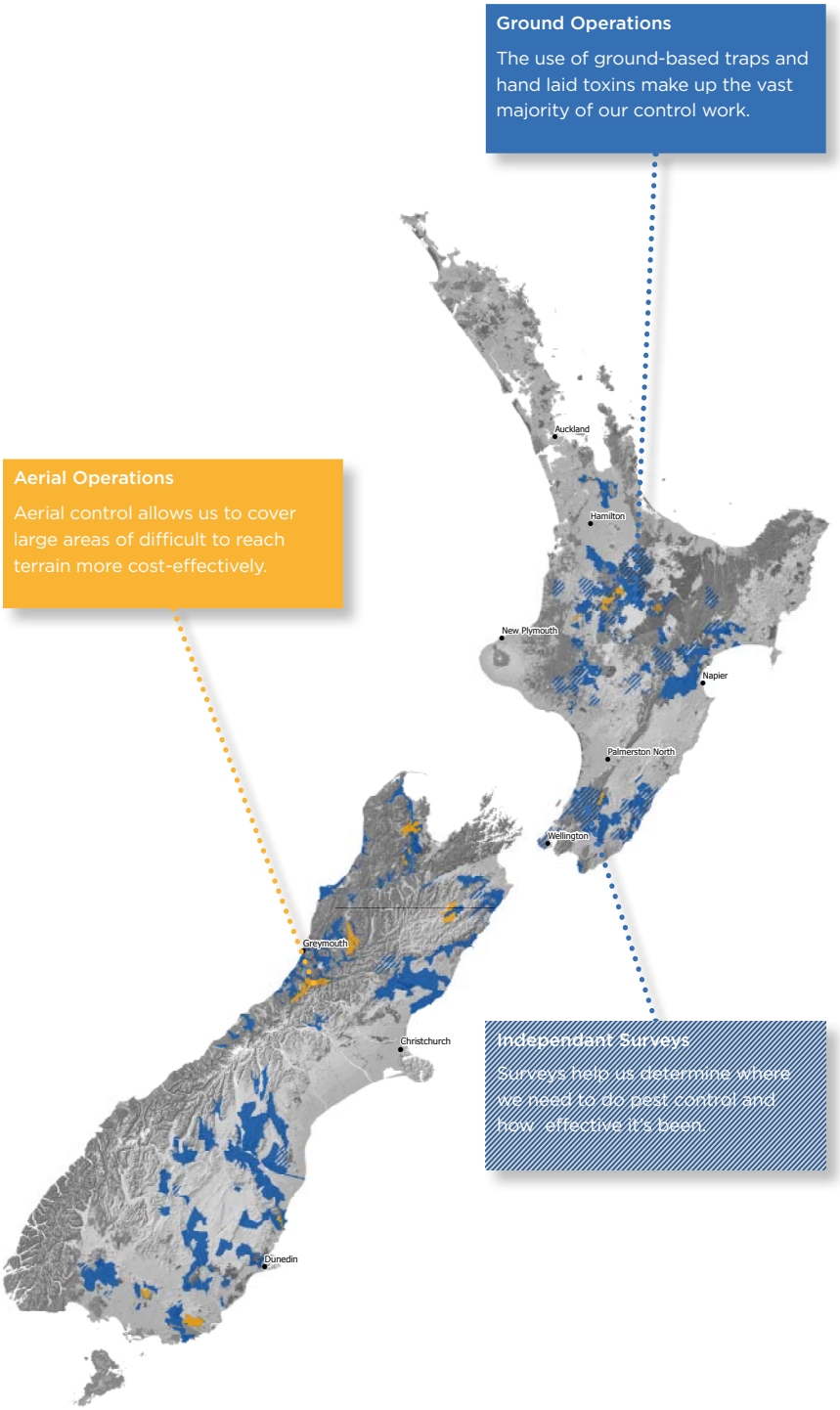
Funding review

Eradicating bovine TB is a long-term undertaking which requires secure funding arrangements. All funders have supported the development of a principle-based methodology to replace the negotiated arrangements that have been in place for some time.

In early 2014, a Stakeholder Steering Group (SSG), made up of current funding representatives and independently chaired by Graham Fraser, was formed to provide advice to OSPRI on funding issues. The SSG identified and quantified a comprehensive list of benefits of the TB plan and assessed how funding shares should be determined.

Having had regard to the SSG's advice, OSPRI will consult on a proposed funding approach, ahead of recommending a new methodology to the Minister for Primary Industries.

Pest Control Operations



Research Summary

We are constantly looking to improve the TBfree programme to achieve better outcomes within existing funding – something we have continued to achieve over a number of years.

Key to this progressive business improvement is our research programme, which seeks to generate scientific and operational breakthroughs. Working with research partners has delivered significant gains, including a number of knowledge transfer and spill-over benefits to other organisations.

PROJECTS COMPLETED

- Optimising possum trapping – The aim of this research was to examine what level of trapping would be most cost-effective to capture 80% of possums in a particular area. The findings will improve the cost-effectiveness of ground control operations.
- Preventing weka exposure to Feratox – The aim of this research was to prevent any bait spillage to the ground (that weka may pick up) while effectively delivering Feratox to possums. Important progress was made in a bait holder that greatly reduces, but not to date eliminates, the risk to weka from Feratox.
- Better understanding the DNA of TB – The aim of this research was to use state-of-the-art DNA 'whole genome sequencing' to improve our ability to do disease diagnostic work. The results will assist determining the source of new infected herds and likely lead to a reduction in the total costs of these investigations.
- Post-control possum aggregation in forest and near forest farmland – The aim of this research was to increase our understanding of possum movement post-control, including patterns of possum aggregation. These results – which include insights about possum mating patterns and habitat importance – will assist the efficacy of post-control work.
- Developing a Proof of Freedom tool – The aim of this research was to build a software tool to robustly estimate the probability that bovine TB is eradicated from an area (including in possums). We now have a user-friendly model to better inform eradication decisions (see the side panel for further description of how this works).
- Eradication Proof of Concept – The aim of this research was to better measure and validate our eradication progress. The results indicate that, on current evidence, it may be feasible to declare TB eradication from all wild animals, possibly as soon as 2020 (with the current plan target set for 2026).

ONGOING PROJECTS

- Improved wild pig and possum surveillance – The aim of this research is to identify the most cost-effective way of using pig and possum surveys to provide high confidence that TB has been eradicated from the possum population.
- Extent of possum control needed for TB eradication – The aim of this research is to more precisely identify the scale, intensity, and duration of possum control required to eradicate TB from possums.
- Possum attractants from female urine – The aim of this research is to identify whether 'synthesised volatile components' from the urine of oestrous female possums are as effective in attracting possums as natural oestrous female urine.
- Biodiversity effects of possum control – The aim of this research is to improve our understanding, through a number of bird monitoring projects, of the impacts of 1080 on bird populations (based on use of paired sites where 1080 hasn't been used).
- BCG vaccination of cattle – The aim of this research is to further evaluate the efficacy of BCG vaccine to protect cattle from infection when naturally exposed to free-living TB possums.
- Finding possums in the dark – The aim of this research is to investigate improvements in thermal imaging technology as a potential way to significantly improve identification of where possum control is needed.

NEW PROJECTS IN 2014/15

- A new approach to eradicating TB from possums – The aim of this research is to assess a more rapid approach to eradicating TB from an area in the Hokonui Hills in Southland.
- Estimating possum–to-cattle TB transmission rates – The aim of this research is to further study the transmission of *M. bovis* from possums to cattle under natural conditions, in order to better estimate transmission rates.
- New ways to lure possums – The aim of this research is to investigate improvements to possum lures, which could improve the efficacy of possum traps, toxic bait use and detection devices.
- Possum home range and capture parameters – The aim of this research is to develop more accurate parameters for use in the models that assist decisions on whether TB has been eradicated.
- Reducing costs of possum recovery for necropsy – The aim of this research is to trial whether cyanide baits are more effective than traps (taking into account, for example, less-frequent site visits and/or more possums being killed).

For more information see the TBfree Research and Disease Control Report on page 52.

ERADICATION EXPLAINED

What do we mean by Proof of Concept?

In short, proving that we can eradicate bovine TB.

Two '**Proof of Concept**' areas were set – areas that are purposefully challenging – to test the feasibility of completely eradicating bovine TB from wildlife in deep bush. These areas are the Hokonui Hills in Southland, and the Hauhungaroa and Rangitoto Ranges in the Central North Island. In these areas, we use different control methodologies (including trials where considered beneficial), followed by intensive wildlife surveillance. Our aim is to prove that eradication is possible and that our eradication methods can be used on a wider scale.

How do we decide if TB is eradicated?

We make careful decisions that take into account a lot of information about disease and pest control over a number of years (including extensive wild animal control and surveys).

We use the term '**Proof of Freedom**' to refer to eradication, i.e. deciding to declare an area free of TB.

To make these important decisions, we take advice from a panel of five experts. With their help, we combine statistical modelling with a qualitative assessment of the area and its surrounding environment.

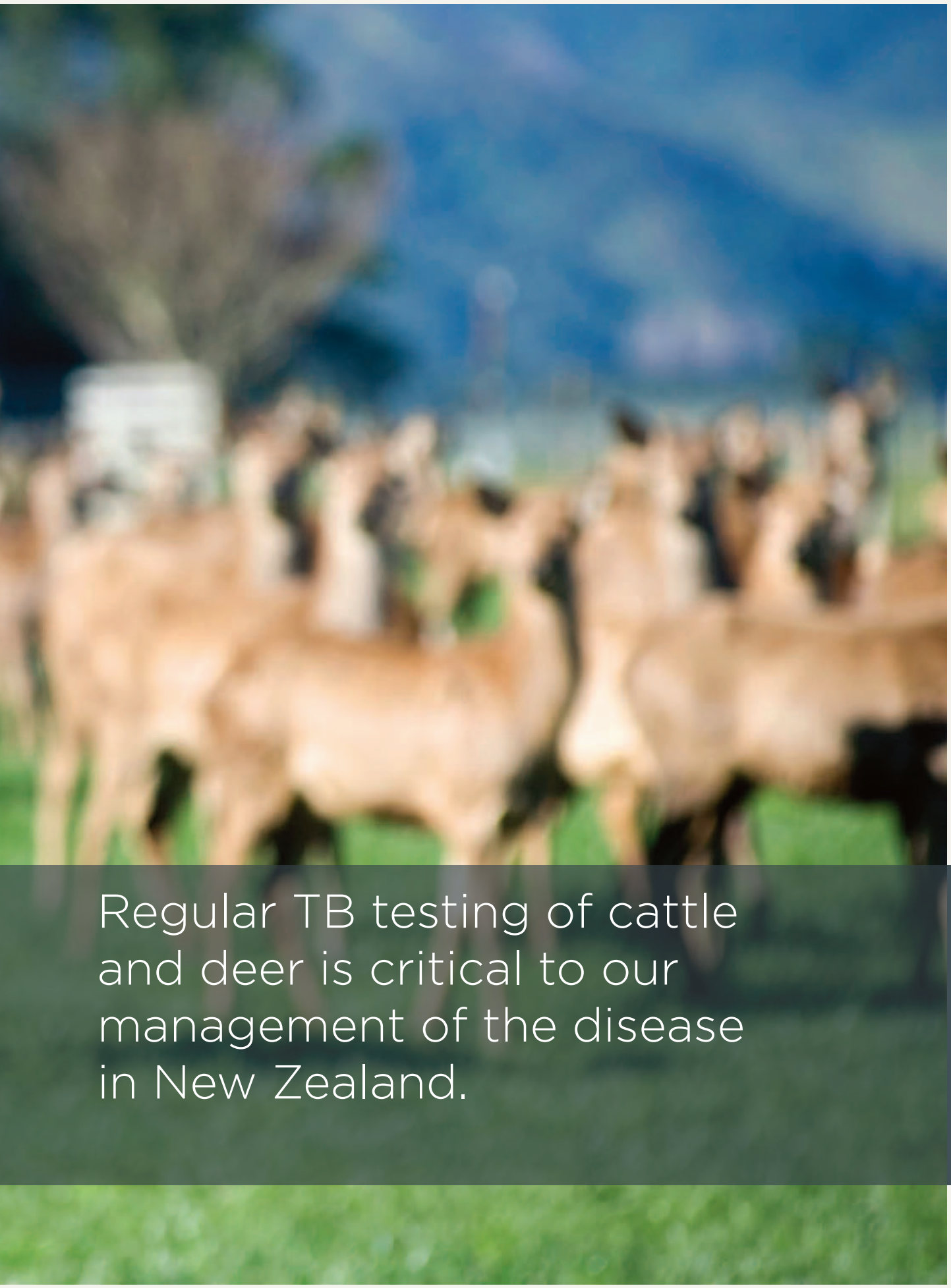
Our final decisions are based on:

- qualitative data, such as information on the area's TB history, the effectiveness of possum control and the results of wild animal surveys;
- quantitative data that includes the outputs from purpose-built models that, based on a number of inputs, calculate the probability of TB being eradicated from the possum population; and
- risk assessment that evaluates the risks and potential costs of making a wrong decision.

During the year, we considered – with the panel's help – 28 cases for eradication in a number of areas (Central North Island, Southern North Island, North Canterbury-Marlborough and Southern South Island). The result was a reduction in all or some of the relevant Vector Risk Areas and eradication from a total of 305,076 hectares.

There is no one-size-fits-all approach and judgments are ultimately required. 'Pulling out' early risks getting eradication decisions wrong (recognising, however, hindsight can be a wonderful thing), while 'pulling out' too late risks spending more money in an area than needed. We make these decisions carefully and are constantly learning and re-evaluating our eradication decision-making.

Financial Statements 2013/2014



Regular TB testing of cattle and deer is critical to our management of the disease in New Zealand.

GOVERNANCE

The Board of Directors (the 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 and the Chief Executive

Procedures for the appointment and removal of directors are governed by the company's constitution. The major shareholders, DairyNZ and Beef + Lamb are each entitled to appoint one director. The Stakeholders' Council identifies and nominates candidates to fill the remaining four to five director vacancies for the 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 (TBfree), and National Animal Identification and Tracing Limited (NAIT).

The Board has appointed William McCook as Chief Executive of OSPRI New Zealand Limited, TBfree New Zealand Limited and National Animal Identification and Tracing Limited.

BOARD COMMITTEES

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

Audit and Risk Committee

The Committee's role is to assist the Board to fulfil its responsibilities in relation to the oversight of the:

- quality and integrity of financial reporting;
- independence and performance of the external auditor; and
- adequacy of the internal control system for financial reporting integrity.

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; and
- 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 Board.

The Audit and Risk Committee shall have the authority to seek any information it requires from any employee of OSPRI New Zealand and subsidiaries.

Committee members for the 2013/14 year were:

- Keith Sutton (Chair)
- Jeff Grant
- Michael Spaans

Human Resources Committee

The Committee's role is to assist the Board to fulfil its responsibilities in relation to:

- the development of an effective policy and structure for management of Health and Safety;
- monitoring health and safety performance and delivery; and
- setting and reviewing the remuneration policies and practices of OSPRI and its subsidiaries.

The Committee also oversees the OSPRI Director Mentoring Programme.

Membership shall comprise at least three members and the Chair of the Committee shall not be the Chair of the OSPRI New Zealand Board.

Committee Members for the 2013/14 year were:

- Lesley Campbell (Chair)
- Ted Coats
- Jeff Grant

Board and Committee meetings

The Board normally meets at least 10 times a year or whenever necessary to deal with specific matters. The table below shows the Directors' Board attendance and Committee members attendance at meetings during the year ended 30 June 2014.

	Board	AR Committee	HR Committee
Jeff Grant	11	3	2
Lesley Campbell	11		2
Ted Coats	11		2
Andrew Coleman	7		
Michael Spaans	9	3	
Keith Sutton	10	3	

Board, Chief Executive and Group Managers

From left to right:

Stu Hutchings, Programme Design & Farm Operations Group Manager

Kayo Sakey, Business Transformation Group Manager

Peter Alsop, New Business Group Manager

William McCook, Chief Executive

Matthew Hall, Pest Management Group Manager

Barry Harris, OSPRI Director (from 1 July 2014)

Keith Sutton, OSPRI Director

Ted Coats, OSPRI Director

Jeff Grant, OSPRI Chair

Lesley Campbell, OSPRI Director

REMUNERATION REPORT

DIRECTORS' REMUNERATION

Directors' fees

The Stakeholders' Council approved on 5 November 2013 the following Directors' fees. These fees have been applied from 1 July 2013 to 30 June 2014.

Position	$
Chair	70,000
Director	35,000
Committee Chair	4,000

Remuneration details of directors

Details of the total remuneration and the value of other benefits received by each OSPRI director for the year 2013/14 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.

Director	Position	$
J Grant	Chair	70,000
E Coats	Director	35,000
L Campbell	Director	39,000
M Spaans	Director	35,000
K Sutton	Director	39,000
Total		**218,000**

EXECUTIVE OFFICER REMUNERATION

Remuneration

The remuneration figures below include all monetary payments actually paid to the Chief Executive and the four Group Manager direct reports during 2013/14. The figures do not include amounts paid post 30 June 2014 that related to the year ended 30 June 2014.

Key Management Remuneration	$
Salaries and other short term employee benefits	1,201,244

Employee remuneration

The table below shows the number of employees and former employees of OSPRI who, in their capacity as employees, received remuneration and other benefits (including redundancy payments) during 2013/14 of at least $100,000 in brackets of $10,000 at 30 June 2014; no OSPRI subsidiary had any employees.

The remuneration figures analysed include all monetary payments actually paid during 2013/14. The figures do not include amounts paid post 30 June 2014 that related to the year ended 30 June 2014.

Remuneration Bands	Number of Employees
$100,000 - $109,999	7
$110,000 - $119,999	4
$120,000 - $129,999	3
$130,000 - $139,999	2
$140,000 - $149,999	1
$150,000 - $159,999	2
$160,000 - $169,999	3
$190,000 - $199,999	2
$200,000 - $209,999	1
$210,000 - $219,999	1
$410,000 - $419,999	1
Total	**27**

STATUTORY DISCLOSURES

DISCLOSURES OF INTERESTS BY DIRECTORS

The following are particulars of general disclosures of interest by Directors holding office as at 30 June 2014, 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.

J J Grant	
AgResearch NZ	Director
Copper Valley Holdings Limited	Director/Shareholder
Finance Now Limited	Director
Massey Lincoln University Trust	Trustee
Milford Sound Development Authority	Chairman
Mt Linton Station	Chairman
National Animal Identification and Tracing (NAIT) Limited	Chairman
SBS Bank	Director
Southern Institute of Technology	Board Member
TBfree New Zealand Limited	Chairman
The Plantations	Partner/Owner
Tower Hill Trust	Partner/Trustee
L A Campbell	
FishServe Innovations NZ Ltd	Director
National Animal Identification and Tracing (NAIT) Limited	Director
Seafood Innovations Ltd	Director
TBfree New Zealand Limited	Director
E G Coats	
National Animal Identification and Tracing (NAIT) Limited	Director
New Zealand Animal Evaluation Ltd	Director
TBfree New Zealand Limited	Director
Waiohotu Company Ltd	Director/Shareholder
A M Coleman	
Ministry for Primary Industries	DDG, Compliance & Response
National Animal Identification and Tracing (NAIT) Limited	Director
TBfree New Zealand Limited	Director
R M Spaans	
DairyNZ Inc	Director
DairyNZ Ltd	Director
Fonterra	Director
National Animal Identification and Tracing (NAIT) Limited	Director
New Zealand Animal Evaluation Ltd	Director
Rimu SA	Director
Shoof International Ltd	Director
Spaans Advisory Services	Director
Spaans Farms Ltd	Director
TBfree New Zealand Limited	Director
Waikato Innovation Park Ltd	Chairman
NZ Food Innovation Waikato Ltd	Chairman
K G Sutton	
Antipodean Lands Limited	Director
Bangor Farm Limited	Shareholder/Director
Bangor Park Limited	Shareholder/Director
Gisborne Rural Trustee Limited	Director
Gough Group Limited and related companies	Director
Maori Trustee Advisory Board	Member
Moanui Farm Limited	Director
National Animal Identification and Tracing (NAIT) Limited	Director
Rangatira Forests Limited	Shareholder/Director
Run 351 Limited	Shareholder/Director
Sealord Group Limited and related companies	Director
Sutton McCarthy Limited	Shareholder/Director
Taranaki Investment Management Ltd	Chairman
Tasman Farms Limited	Chairman
TBfree New Zealand Limited	Director
Te Hau Station Limited	Director
Te Tarake Forests Limited	Shareholder/Director
The Van Diemen's Land Company	Governor
Waitangi Falls Trust	Trustee
Wellington International Airport Ltd	Director
Wools of New Zealand Ltd	Director

STATUTORY DISCLOSURES

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

No Director of any of OSPRI's subsidiaries received additional remuneration or benefits in respect of their directorships. The following people held office as Directors of subsidiary companies at 30 June 2014.

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

Company	Director
National Animal Identification and Tracing (NAIT) Limited	J Grant
	E Coats
	L Campbell
	M Spaans
	K Sutton
	A Coleman

Company	Director
TBfree New Zealand Limited	J Grant
	E Coats
	L Campbell
	M Spaans
	K Sutton
	A Coleman

AUDITOR FEES

KPMG have been appointed auditors for the OSPRI Group. The amount payable by OSPRI and its subsidiaries to KPMG as audit fees for 2013/14 was $35,000. There was no non-audit work undertaken during the year.

STATUTORY DISCLOSURES

SHAREHOLDERS

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 Stakeholders' Council performs a number of functions as set out in the Second Schedule of OSPRI's Constitution. For example, the Council (without limiting the ambit of the Second Schedule):

- assists the Board and Shareholders with the Director appointment process, by approving people who are eligible for appointment;
- comments on long-term strategies; the annual business plan and budget;
- provides advice on proposals from the Board for new activities and services; and
- recommends projects to the Board and/or the commissioning of specific reports by the Board.

The Stakeholders' Council representatives during 2013/14 were:

DairyNZ	Ben Allomes
NZ Deer Farmers Association	Ponty von Dadelszen / Paddy Boyd
NZ Stock & Station Agents Association	Andrew Clark
Deer Industry New Zealand	Dan Coup
Federated Farmers – Meat & Fibre	Anders Crofoot (Chairman)
Beef + Lamb New Zealand	Andy Fox
Ministry for Primary Industries	David Hayes
Federated Farmers – Dairy	Willy Leferink
DCANZ	Kevin Old
Meat Industry Association	Tim Ritchie
Local Government NZ	Fenton Wilson

STATEMENT OF COMPREHENSIVE INCOME
FOR THE THIRTEEN MONTHS ENDED 30 JUNE 2014

	Note	Group 2014 $000	Parent 2014 $000
TBfree Revenue		80,701	-
NAIT Revenue		9,135	-
OSPRI Revenue		-	650
Total revenue		**89,836**	**650**
Expenditure			
NAIT Operations		2,893	-
Contact Centre and Compliance		1,986	-
Disease Management & Testing		17,810	-
Research		2,565	-
Pest Control & Management		54,281	-
Business Service Support		8,192	685
Total Expenditure	3	**87,727**	**685**
Surplus / (Deficit) for the year		**2,109**	**(35)**
Net finance income	4	159	5
Other Comprehensive Income		-	-
Total Comprehensive Income		**2,268**	**(30)**

STATEMENT OF CHANGES IN EQUITY
FOR THE THIRTEEN MONTHS ENDED 30 JUNE 2014

Group	Share Capital $000	Retained Earnings $000	Total Equity $000
Balance at 1 June 2013	-	-	-
Acquisition of National Animal Identification and Tracing (NAIT) Ltd	-	3,037	3,037
Surplus for the year	-	2,268	2,268
Other Comprehensive Income	-	-	-
Balance at 30 June 2014	**-**	**5,305**	**5,305**

Parent	Share Capital $000	Retained Earnings $000	Total Equity $000
Balance at 1 June 2013	-	-	-
(Deficit) for the year	-	(30)	(30)
Other Comprehensive Income	-	-	-
Balance at 30 June 2014	**-**	**(30)**	**(30)**

These statements should be read in conjunction with the Statement of Accounting Policies and Notes to the Financial Statements

STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2014

	Note	Group 2014 $000	Parent 2014 $000
Current Assets			
Cash & Cash Equivalents		7,894	179
Term Deposits		3,500	-
Receivables	8	6,621	506
Prepayments		82	82
GST Receivable		475	145
Total Current Assets		**18,572**	**912**
Non-Current Assets			
Property, Plant and Equipment	5	1,715	1,376
Intangible Assets	5	8,426	211
Total Non-Current Assets		**10,141**	**1,587**
Total Assets		**28,713**	**2,499**
Current Liabilities			
Payables		11,551	1,140
Employee Entitlements		1,389	1,389
Revenue in advance	9	1,941	-
Total Current Liabilities		**14,881**	**2,529**
Non-Current Liabilities			
Revenue in advance	9	8,527	-
Total Non-Current Liabilities		**8,527**	**-**
Total Liabilities		**23,408**	**2,529**
Net assets		**5,305**	**(30)**
Equity			
Retained earnings		3,037	-
(Deficit) / Surplus for the year		2,268	(30)
Total Equity		**5,305**	**(30)**

Authorised on behalf of the OSPRI New Zealand Ltd Board of Directors on the 21 August 2014:

J J Grant
Chair of the Board

K G Sutton
Chair of the Audit and Risk Committee

These statements should be read in conjunction with the Statement of Accounting Policies and Notes to the Financial Statements

STATEMENT OF CASH FLOWS
FOR THE THIRTEEN MONTHS ENDED 30 JUNE 2014

	Group 2014 $000	Parent 2014 $000
Operating Activities		
Cash was received from:		
Crown	32,859	-
Industry Contributions	43,771	-
Levies	9,223	-
Regional Funding Contributions	5,537	-
Management fees, reactor proceeds and other	1,630	568
Payments from subsidiaries	-	6,333
Interest	215	5
	93,235	**6,906**
Cash was applied to:		
Payments to employees	11,600	2,281
Payments to suppliers and for other operations	72,711	2,885
Net GST	148	143
	84,459	**5,309**
Net Cash Flow from Operating Activities	**8,776**	**1,597**
Investing Activities		
Cash was received from:		
Cash received on acquisition of TBfree	4,545	-
Cash received on acquisition of NAIT	2,723	-
	7,268	**-**
Cash was applied to:		
Purchase intangible assets	3,142	193
Purchase Property Plant & Equipment	1,507	1,225
Purchase Term Deposit	3,500	-
	8,149	**1,418**
Net Cash Flow from Investing Activities	**(881)**	**(1,418)**
Net increase in cash and cash equivalents	7,895	179
Opening cash and cash equivalent balance	-	-
Cash and Cash Equivalents at 30 June	**7,895**	**179**

These statements should be read in conjunction with the Statement of Accounting Policies and Notes to the Financial Statements

RECONCILIATION OF NET SURPLUS TO NET CASH FLOW FROM OPERATING ACTIVITIES FOR THE THIRTEEN MONTHS ENDED 30 JUNE 2014

	Group 2014 $000	Parent 2014 $000
Net Surplus / (Deficit) for the Year	**2,268**	**(30)**
Items not involving cash flows:		
Depreciation	309	235
Amortisation	1,387	72
Movement in Bad Debt Provision	9	-
Loan Forgiveness	(177)	-
Impact of changes in working capital items		
Decrease/(Increase) in Receivables	4,289	(82)
Increase/(Decrease) in Payables	255	(245)
Increase in Employee Entitlements	566	1,389
(Decrease)/Increase in Accruals	(82)	258
(Decrease) in Revenue in Advance	(48)	-
Net Cash Inflow / Outflow from Operating Activities	**8,776**	**1,597**

These statements should be read in conjunction with the Statement of Accounting Policies and Notes to the Financial Statements

STATEMENT OF ACCOUNTING POLICIES
FOR THE THIRTEEN MONTHS ENDED 30 JUNE 2014

A GENERAL INFORMATION

These financial statements are for OSPRI New Zealand Limited ("the Parent"), as a separate entity and the consolidated financial statements are for the OSPRI New Zealand Limited Group ("the Group"), which includes the subsidiaries National Animal Identification and Tracing (NAIT) Limited ("NAIT") and TBfree New Zealand Limited ("TBfree") - note 11. The Parent and the Group are designated as public benefit entities for financial reporting purposes. OSPRI New Zealand Limited is a company incorporated in New Zealand; the registered office of OSPRI is located on Level 9 CallActive House, 15 Willeston Street, Wellington 6011.

TBfree New Zealand Limited manages the National Pest Management Plan (NPMP) for Bovine Tuberculosis in accordance with the provisions of the Biosecurity Act 1993.

National Animal Identification and Tracing (NAIT) Limited is responsible for implementing New Zealand's National Animal Identification and Tracing Scheme.

The Parent was incorporated on the 6 June 2013; the Group was formed following the acquisition of TBfree New Zealand Limited ("TBfree") and National Animal Identification and Tracing (NAIT) Limited ("NAIT"). Assets and liabilities which could be identified as providing a benefit to all members of the Group were transferred to the Parent from TBfree. No assets or liabilities meeting this criteria were held by NAIT on acquisition.

OSPRI and TBfree commenced operation from 1 July 2013. Thirteen months is from the date of incorporation and as OSPRI is a new entity there are no comparative figures.

These financial statements have been approved for issue by the Board of Directors on 21 August 2014.

B SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements have been prepared in accordance with the Companies Act 1993 and Charities Act 2005, which requires compliance with New Zealand generally accepted accounting practice for large companies. They comply with New Zealand equivalents for not-for-profit Entity International Public Sector Accounting Standards (NZ PBE IPSAS) for Tier 1 entities and other financial reporting standards as appropriate for public benefit entities.

(a) Basis of Preparation

The principal accounting policies adopted in the preparation of the financial statements are set out below. These policies have been consistently applied to all the periods presented, unless otherwise stated.

(i) Historical cost convention

These financial statements have been prepared under the historical cost convention.

(ii) Accrual basis and going concern

The accrual basis of accounting has been used unless otherwise stated and the financial statements have been prepared on a going concern basis.

(b) Functional and Presentation Currency

Items included in the financial statements are presented in New Zealand dollars, which is the Group and Parent's functional and presentational currency.

(c) Income Tax

The Parent and all subsidiaries are registered as a charitable entities with the Charities Commission and are therefore exempt from income tax on normal operations.

(d) Goods and Services Tax

The Statement of Comprehensive Income has been prepared so that all components are stated exclusive of GST. All items in the Statement of Financial Position are stated net of GST, with the exception of receivables and payables, which include GST invoiced.

(e) Employee Benefits

All employees of the Group are employed by the Parent. Liabilities for wages and salaries, and annual leave are recognised in the provision for employee benefits in respect of employees' services up to the reporting date and measured at the amounts expected to be paid when the liabilities are settled. These are allocated to each member of the Group on a proportional basis.

(f) Share Capital

Share Capital represents the nominal value of shares that have been issued. Any transaction costs associated with the issuing of shares are deducted from share premium, net of any related income tax benefits.

Equal rights, no preferences and no restrictions are attached to the shares. No dividends were payable during the year.

(g) Significant management judgements in applying accounting policies

(i) Capitalisation of internally developed software

Distinguishing between the research and development phase of new customised software project and whether the costs meet the recognition requirements for capitalisation requires judgement. After capitalisation, management monitor whether the recognition requirements continue to be met and whether there are any indications that further capitalisation costs need to be impaired.

(ii) Impairment

Opening asset values have been reviewed for impairment to determine that the carrying amount does not exceed the recoverable amount. By doing so, the Group has determined that asset carrying values are in line with recoverable values.

(h) Critical Accounting Estimates

The Group makes estimates and assumptions regarding the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next financial period are outlined below.

(i) Useful lives of property, plant and equipment and intangible assets

In determining the amortisation charge for the year the Group estimates the economic life of intangible assets based on judgement.

(ii) Revenue recognition

Revenue of the Group comprises revenue from levies raised on the slaughter of cattle and deer, the sale of cattle tags and funding agreements with the Ministry for Primary Industries (MPI), DairyNZ Incorporated, Beef + Lamb New Zealand Limited, Deer Industry New Zealand and Regional Councils. Revenue is recognised when received or receivable; it is recognised exclusive of GST. Interest income is recognised on a time proportion basis using the effective interest method. Interest is accrued on held-to-maturity investments using the effective interest rate proportioned over the duration of the investment.

Tag levy revenue received includes revenue for services yet to be provided by NAIT, as the average on farm life of tagged cattle is six years. A portion of this tag levy revenue, less an allowance (3%) for cattle loses and unused tags, is held as revenue in advance to offset future animal tracing expenditure.

Non exchange revenues received has been disclosed separately in the financial statements.

NOTES TO THE FINANCIAL STATEMENTS
FOR THE THIRTEEN MONTHS ENDED 30 JUNE 2014

1 SEGMENT INFORMATION

OSPRI's segment operating information is used by the Directors and senior management as a basis for evaluating the entity's performance in achieving its objectives and for making decisions about the future.

The Group is organised and reports to its Directors on the basis of three functional areas: the Parent and both subsidiaries.

Inter-segment allocations: segment expenses include expense arising from the provision of business support services provided by the Parent to its subsidiaries. These transfers are accounted for at cost and are eliminated on consolidation. The amount of these services was $0.65 million.

1.1 Operating Statement

	OSPRI 2014 $000	NAIT 2014 $000	TBfree 2014 $000	Group 2014 $000
Operating Income				
Crown Revenue NAIT / TBfree	-	1,590	30,249	31,839
Slaughter Levies NAIT / TBfree	-	3,320	27,270	30,590
Tag Levies	-	3,018	-	3,018
Industry and Regional Funding	-	48	22,417	22,465
Amortisation of Revenue in advance	-	1,147	-	1,147
Other Income	650	12	765	1,427
Total Operating Income	**650**	**9,135**	**80,701**	**90,486**
Operating Expenditure				
Infection Management	-	-	1,338	1,338
Disease Management and Testing	-	-	16,472	16,472
Research	-	-	2,565	2,565
NAIT Operations	-	2,893	-	2,893
Contact Centre and Compliance	-	865	1,121	1,986
Pest Control & Management	-	-	54,281	54,281
Business Service Support	685	3,762	4,395	8,842
Total Operating Expenditure	**685**	**7,520**	**80,172**	**88,377**
Net Operating Surplus / (Deficit) for the year	**(35)**	**1,615**	**529**	**2,109**
Elimination of inter-segment revenue and expenses	**(650)**	**400**	**250**	**-**

Inter-segment revenue and expenses relate to the mangement services fees charges by OSPRI to NAIT and TBfree.

1.2 Balance Sheet Segment Information

	OSPRI 2014 $000	NAIT 2014 $000	TBfree 2014 $000	Group 2014 $000
Non-Current Assets	1,587	4,868	3,686	10,141
Current Assets	912	9,004	11,699	18,572
Total Assets	**2,499**	**13,872**	**15,385**	**28,713**
Non-Current Liabilities	-	3,968	4,559	8,527
Current Liabilities	2,529	5,114	10,281	14,881
Total Liabilities	**2,529**	**9,082**	**14,840**	**23,408**
110 Shares @ $1	-	-	-	-
Retained Earnings	-	3,037	-	3,037
Surplus / (deficit) for the year	(30)	1,753	545	2,268
Total Equity	**(30)**	**4,790**	**545**	**5,305**

Inter-segment transactions have been eliminated from the Group total. These transactions relate to intercompany payables and recievables within the Group. It also reflects the net GST refund outstanding to the Group.

2 REVENUE

Management Service Fee

The Parent provides management services to NAIT and TBfree in accordance with a management services agreement with each of the subsidiaries.

Tag Levy

Tag levy revenue is received from the sale of NAIT ear tags. Tag levy revenue received includes revenue for services yet to be provided by NAIT based on the average estimated farm life of a tagged animal.

Slaughter Levy

NAIT received a slaughter levy on all tagged cattle killed between 1 July 2013 and 28 February 2014 at a rate of $1.00; reducing to $0.50 from 1 March 2014.

A slaughter levy was charged on all untagged cattle and deer (deemed an impracticable to tag levy) at a rate $13.00.

TBfree received a levy on all adult cattle slaughtered during the year at a rate of $11.50 per animal.

Crown funding was received for the NAIT scheme and the TBfree programme in accordance with the respective funding agreements.

Industry funding was received from the Dairy, Beef and Deer sectors in accordance with industry agreements.

Other Income includes $176,969 non exchange revenue received when a non interest loan from AHB was forgiven.

3 OPERATING EXPENDITURE

Infection management includes the compensation paid to farmers for TB reactor cattle.

Disease Costs consist of the costs related to conducting cattle tests for bovine tuberculosis (TB), investigation of herd breakdowns, implementation and management of area and herd movement control requirements, laboratory services, compliance monitoring and TB reactor management.

Research includes the costs associated with conducting research into TB and pest control.

NAIT operations includes all costs that relate to the operation of NAIT's on-farm activities.

Pest Control Management

Costs involved in the management and implementation of the pest operation programme.

Pest Management control costs are recognised as an expense in the financial statements to the extent of work undertaken on each operation. Where invoices have not been received by TBfree at balance date, an estimate of the value of work completed is used as the basis for an accrual.

Business Service Support

OSPRI provides governance, strategic support and shared service support for its subsidiaries, TBfree New Zealand Ltd and National Animal Identification and Tracing (NAIT) Ltd.

3.1 Business Service Support

	Group 2014 $000	Parent 2014 $000
Allocated remuneration for business support	3,457	284
Communications	747	22
Total administration overheads (Incl rent, business services, IT)	3,740	348
Depreciation and amortisation	308	31
Doubtful Debt Provision	2	-
Total	**8,254**	**685**

4 NET FINANCING COSTS

Finance income comprises interest income on funds held on-call or in term deposits. Interest income is recognised as it accrues.

	Group 2014 $000	Parent 2014 $000
Financing Income		
Interest income	159	5
Net finance income	**159**	**5**

5 PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

Cost

Property, Plant and Equipment and Intangibles are initially recorded at cost. Cost is the value of consideration given to acquire the assets and the value of other directly attributable costs incurred in bringing those assets to the location and condition necessary for their intended use.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that the future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All repairs and maintenance expenditure is expensed as they are incurred.

The costs of self-constructed assets are recognised as capital work in progress until the assets are operating in the manner intended by management at which time they are transferred to property, plant and equipment or intangible assets.

Depreciation and amortisation

Depreciation is calculated on a straight-line basis so as to expense the costs of the assets to their residual values over their expected useful life as follows:

Type of asset	Life
Computer & Associated Equipment	3 - 6 years
Furniture & Fittings	4 - 15 years
Leasehold improvements	5 - 8 years
Motor Vehicles	4 years
Software	3 - 5 years

Depreciation of assets utilised by the subsidiaries in their operations, but held by the Parent, are allocated within the accounts of the subsidiaries.

The residual value and useful life of property, plant and equipment is reassessed annually.

Acquisition of Subsidiaries

The historic cost and accumulated depreciation and amortisation at acquisition is shown in order to provide a realistic annual depreciation and amortisation value which more closely matches the on-going charges of the Group.

Reconciliation of the carrying values of property, plant and equipment

Group	Leasehold improvements $000	Furniture and fittings $000	Computer equipment $000	Motor vehicles $000	Total $000
Cost					
Balance at 1 June 2013	-	-	-	-	-
Additions on Acquisition	264	683	990	74	2,011
Additions	901	301	184	121	1,507
Disposals	(136)	(356)	(92)	-	(584)
Balance at 30 June 2014	**1,029**	**628**	**1,082**	**195**	**2,934**
Accumulated Depreciation					
Balance at 1 June 2013	-	-	-	-	-
Additions on Acquisition	214	530	672	52	1,468
Depreciation Expense	78	54	166	11	309
Disposals	(134)	(334)	(91)	-	(559)
Balance at 30 June 2014	**158**	**250**	**747**	**63**	**1,218**
Carrying Value at 30 June 2014	**871**	**378**	**335**	**132**	**1,716**

Parent	Leasehold improvements $000	Furniture and fittings $000	Computer equipment $000	Motor vehicles $000	Total $000
Cost					
Balance at 1 June 2013	-	-	-	-	-
Additions on Acquisition	146	480	990	-	1,616
Additions	792	255	178	-	1,225
Disposals	(132)	(341)	(92)	-	(565)
Balance at 30 June 2014	**806**	**394**	**1,076**	**-**	**2,276**
Accumulated Depreciation					
Balance at 1 June 2013	-	-	-	-	-
Additions on Acquisition	132	417	672	-	1,221
Depreciation Expense	41	30	165	-	236
Disposals	(132)	(334)	(91)	-	(557)
Balance at 30 June 2014	**41**	**113**	**746**	**-**	**900**
Carrying Value at 30 June 2014	**765**	**281**	**330**	**-**	**1,376**

Reconciliation of the carrying values of intangible assets

Group	Software $000	WIP $000	Total $000
Cost			
Balance at 1 June 2013	-	-	-
Additions on Acquisition	14,768	1,973	16,741
Additions	-	3,142	3,142
Capitalisation of WIP	3,175	(3,175)	-
Disposals	(2,820)	-	(2,820)
Balance at 30 June 2014	**15,123**	**1,940**	**17,063**
Accumulated Amortisation			
Balance at 1 June 2013	-	-	-
Additions on Acquisition	10,070	-	10,070
Amortisation Expense	1,387	-	1,387
Disposals	(2,820)	-	(2,820)
Balance at 30 June 2014	**8,637**	**-**	**8,637**
Carrying Value at 30 June 2014	**6,486**	**1,940**	**8,426**

The majority of computer software is made up of the NAIT Database and Disease Management systems. They have an estimated life of 5 years, and remaining useful life of 4 years.

Parent	Software $000	WIP $000	Total $000
Cost			
Balance at 1 June 2013	-	-	-
Acquisition of Subsidiaries	613	55	668
Additions	-	193	193
Capitalisation of WIP	248	(248)	-
Balance at 30 June 2014	**861**	**-**	**861**
Accumulated Amortisation			
Balance at 1 June 2013	-	-	-
Acquisition of Subsidiaries	578	-	578
Amortisation Expense	72	-	72
Balance at 30 June 2014	**650**	**-**	**650**
Carrying Value at 30 June 2014	**211**	**-**	**211**

6 INVESTMENTS

Acquisition of NAIT Shares

OSPRI purchased all shares in NAIT for token consideration. The assets and liabilities of NAIT were recorded at book value and the balance recorded as equity in accordance with a common control business combination.

Net Asset purchase of TBfree

TBfree purchased the assets and liabilities of the Animal Health Board (AHB) by way of an interest free loan from the AHB. As this was considered a common control business combination the assets and liabilities were recorded at book value in TBfree's financial statements. The AHB subsequently forgave the loan of $176,969 which has been recognised as revenue.

	NAIT $000	TBfree $000
Cash and Cash Equivalents	2,724	4,545
Receivables	2,509	7,982
GST Receivable	327	548
Property, plant and equipment	15	527
Intangible assets	4,445	2,227
Total assets	**10,020**	**15,829**
Payables	690	6,874
Employee entitlements	44	778
Accruals	-	3,732
Revenue in advance	6,248	-
Funders' revenue advances	-	4,268
Total liabilities	**6,982**	**15,652**
Equity	3,038	-
Net Assets	-	177
Total equity / net assets	**3,038**	**177**

7 FINANCIAL INSTRUMENTS

The Group and the Parent are party to financial instruments as part of its operation. Financial instruments carried in the Statement of Financial Position include cash and cash equivalents, receivables and payables. All financial assets are classified as loans and receivables and are initially recorded at fair value and subsequently measured at amortised cost using the effective interest rate method. Financial assets are derecognised when the rights to receive cash flows have been transferred and the entity has transferred substantially all risks and rewards of ownership. All financial liabilities are initially recorded at fair value and subsequently measured at amortised cost using the effective interest method.

(i) Cash and cash equivalents

Cash and cash equivalents include cash on hand, deposits with financial institutions with an original maturity of less than 90 days and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities on the Statement of Financial Position.

(ii) Term deposits

Investments are classified as held-to-maturity if the holder has the intention and ability to hold them until maturity. The Group classifies 6-month term deposits as held-to-maturity investments.

(iii) Accounts Receivable

Accounts receivable are carried at estimated realisable value after providing for debts where collection is doubtful. Collectability of accounts receivable is reviewed on an ongoing basis. Debts which are known to be uncollectible are written off. A provision for doubtful debts is established when there is objective evidence that the Group will not be able to collect all amounts due according to their original terms. The amount of the provision is recognised in the Statement of Comprehensive Income.

(iv) Accounts Payables

These amounts represent liabilities for goods and services provided to the Group and Parent prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid with 30 days of recognition.

The financial instruments to which the Group is party to include cash and cash equivalents with New Zealand registered banks, accounts receivable and payable. There is no currency risk.

7.1 Credit Risk

Credit risk arises from cash and cash equivalents as well as credit exposures to industry participants including outstanding receivables and committed transactions. The Group does not require any collateral or security to support financial instruments relating to receivables or financial institutions. The Group holds all its cash and cash equivalents with New Zealand registered banks with a short term debt rating of not less than A-1.

All receivables are current. The carrying value of collective financial assets for which an impairment allowance has been recognised by the Group was $9,000. This relates to the Otago Land Levy.

The maximum exposure to credit risk is equivalent to the amounts recorded in the Statement of Financial Position.

7.2 Interest Rate Risk

The Group is exposed to interest rate risk through the return on any funds it has invested and the cost of borrowed funds which will fluctuate due to changes in market interest rates. Interest rate risk is monitored on a regular basis.

All cash and cash equivalents are floating rate instruments. The effect on net interest costs had the floating interest rate been 1.0% higher / lower would be an increase / decrease of $66,000.

7.3 Liquidity Risk

The Group's approach to managing liquidity risk is to ensure, as far as possible, that it will always have sufficient cash and borrowing facilities to meet its liabilities when due, under both normal and stressed conditions. The only financial liabilities that the Group has are payables and accruals which are expected to settle within 60 days of the Statement of Financial Position date.

7.4 Fair Value

The fair value is equivalent to the carrying amount disclosed in the Statement of Financial Position.

7.5 Capital Management

The Group's capital includes retained earnings. The Group manages its capital with long term objectives tailored to each subsidiary.

7.6 Financial Instruments by Category

The Group's and Parent's financial instruments by category are equivalent to the values disclosed in the Statement of Financial Position.

	Group	Parent
Assets as per Statement of Financial Position	**2014**	**2014**
Loan and Receivables	**$000**	**$000**
Trade Receivables	6,621	506
Cash and cash equivalents	7,894	179
Bank term deposits with maturities greater than 3 months	3,500	-
	18,015	**685**

	Group	Parent
Liabilities as per Statement of Financial Position	**2014**	**2014**
Amortised Cost	**$000**	**$000**
Trade payables	7,804	863
Non-trade payables and accrued expenses	3,747	277
Employee Entitlements	1,389	1,389
Total trade creditors and other payables	**12,940**	**2,529**

8 TRADE AND OTHER RECEIVABLES

	OSPRI 2014 $000	NAIT 2014 $000	TBfree 2014 $000	Group 2014 $000
These comprise:				
Crown	-	-	8	8
DairyNZ	-	-	1,485	1,485
Deer Industry NZ	-	-	66	66
Slaughter levies NAIT / TBfree	-	670	2,531	3,201
Regions	-	-	575	575
Tag levy	-	1,165	-	1,165
Other receivables	506	10	118	128
Less Bad Debt Provision	-	-	(9)	(9)
Total	**506**	**1,845**	**4,774**	**6,619**

Movement in doubtful debts	Group 2014 $000	Parent 2014 $000
Balance 1 June 2013	-	-
Provision acquired at acquisition	7	-
Increase in doubtful debt provision	2	-
Balance 30 June 2014	**9**	**-**

The provision for doubtful debts relates to the carrying of receivables for the Otago Land Levy.

9 REVENUE IN ADVANCE

Funding received by NAIT from funding providers and not fully expended in the 2011/12 financial year was recognised as a liability and held to reduce future levies over the subsequent three years.

Tag levy revenue received includes revenue for services yet to be provided by NAIT, as the average on farm life of tagged cattle is six years. A portion of this tag levy revenue, less an allowance to recognise cattle losses and unused or lost tags is held as revenue in advance to offset future animal tracing expenditure. The allowance for such losses is presently assessed to be 3% of tags in circulation at balance date.

Funding received by TBfree from funding providers and not fully expended in the financial year has been recognised as a liability. The net of funders' liabilities and assets has been classified as a liability and held as Funders Revenue in Advance in the Statement of Financial Position.

	Group 2014 $000	Parent 2014 $000
Funders revenue in advance	5,706	-
Tag revenue in advance	4,762	-
Total revenue in advance	**10,468**	**-**

10 STATEMENT OF COMMITMENTS AS AT 30 JUNE 2014

10.1 Capital Commitments

Capital commitments for the Parent and Group at 30 June 2014 were $214,000.

10.2 TBfree Pest Management Carry Forwards

TBfree enters into contractual arrangements for the completion of Pest Management Control operations.

The assessed cost to complete pest control operations that were not accrued, but had been contracted at 30 June 2014 is $1.78 million. All of these operations will be completed within the following financial year from funding contained within the 2014/15 year's budget.

10.3 Leases

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Operating lease payments are expensed on a straight line basis over the period of the lease.

The Group has entered into a number of non-cancellable operating leases for buildings, operating equipment and motor vehicles. The Parent's lease commitments include building and office equipment. The lease commitments are based on current rentals. Future commitments at year end in respect of these are as follows:

	Group 2014 $000	Parent 2014 $000
Property leases	2,316	1,699
Vehicle Leases	489	-
Office Equipment Leases	157	157
Total	**2,962**	**1,856**

	Group 2014 $000	Parent 2014 $000
Less than one year	1,293	765
Longer than one year but no longer than two years	1,128	740
Longer than two years but no longer than five years	541	351
Total	**2,962**	**1,856**

10.4 Research Contracts

TBfree has entered into a number of funding agreements for research projects. The continued funding of these is subject to normal performance reviews. Future commitments at year end in respect of these funding agreements are as follows:

	Group 2014 $000	Parent 2014 $000
Less than one year	1,971	-
Longer than one year but no longer than two years	1,160	-
Longer than two years but no longer than five years	487	-
Total	**3,618**	**-**

11 RELATED PARTIES

Subsidiaries, associates and joint ventures

The financial statements consolidate OSPRI's wholly owned subsidiary companies, TBfree New Zealand Limited and National Animal Identification and Tracing (NAIT) Limited, incorporated under the Companies Act 1993. OSPRI, as the Parent entity, consolidates both subsidiaries because it has the capacity to control the financing and operating policies of both companies.

OSPRI's shareholders are DairyNZ (45.5%), Beef+Lamb New Zealand Ltd (45.5%) and Deer Industry New Zealand (9%). Beef+Lamb New Zealand Ltd and DairyNZ Incorporated are related parties as they have significant influence over OSPRI; Deer Industry New Zealand is a related party due to OSPRI's associate-relationship to Deer Industry New Zealand.

Related party transactions arise when an entity or person(s) has the ability to significantly influence the financial and operating policies of the Parent and Group.

The Parent and Group have a related party relationship with its subsidiaries and key management personnel. TB reactor compensation, Operational Response Events and Locally Initiated Programme payments may have been made to Directors or businesses associated with Directors in the ordinary course of business. Unless otherwise stated transactions with related parties in the years reported have been on an arms-length basis, none of the transactions included special terms, conditions or guarantees.

Group	Total Funding provided $000	Total Funding received $000	Total outstanding to Group $000	Total outstanding from Group $000
Deer Industry New Zealand	-	1,467	76	-
DairyNZ Limited	-	15,500	1,490	-
AgResearch	1,605	-	-	323

The Parent provided administrative and management support to subsidiary entities, which was allocated to the subsidiaries for a value of $5.7million in the year.

During the year, TBfree provided funding to OSPRI for capital expenditure. This included the refurbishment of the Wellington offices completed in order to incorporate all Wellington-based staff and the purchase of computer hardware and software which is utilised by all entities. The funding was provided with no interest charge and totalled $1.4 million.

Deer Industry New Zealand contributed a total of $1.47 million towards operational costs, $1.42 million to TBfree and $48,000 to NAIT. $76,000, including GST, remained outstanding at balance date.

AgResearch has a long standing relationship with TBfree. It has become a related party as Jeff Grant is a director. OSPRI paid a total of $1.6 million, $1.5 million for the provision of laboratory and diagnostic testing and $105,123 for a contracted research project into better identification of TB genomes of which $35,000 was outstanding at balance date.

Barry Harris was appointed a director of the OSPRI group from 1 July 2014 - post balance date. He is the deputy chair of AgResearch and a director of DairyNZ.

Ted Coats is a consultant in technical systems for Livestock Improvement Corporation (LIC). LIC is a related party as 75% of dairy farmers opted in to use LIC as their NAIT data provider.

Key Management Personnel

Monetary payments made to key management personnel, including the Chief Executive and his direct reports, totalled $1.2 million.

Directors

Directors' fees for the year were paid by the Parent and totalled $218,000.

12 CONTINGENCIES

The Parent and Group did not have any contingent liabilities as at 30 June 2014.

13 SUBSEQUENT EVENTS AFTER BALANCE DATE

There were no significant events after balance sheet date that would have a material impact on the financial statements.

INDEPENDENT AUDITOR'S REPORT

TO THE DIRECTORS OF OSPRI NEW ZEALAND LIMITED

Report on the company and group financial statements

We have audited the accompanying financial statements of OSPRI New Zealand Limited ("the company") and the group, comprising the company and its subsidiaries, on pages 34 to 50. The financial statements comprise the statements of financial position as at 30 June 2014, the income statements and statements of comprehensive income, changes in equity and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information, for both the company and the group.

Directors' responsibility for the company and group financial statements

The directors are responsible for the preparation of company and group financial statements in accordance with generally accepted accounting practice in New Zealand and International Financial Reporting Standards that give a true and fair view of the matters to which they relate, and for such internal control as the directors determine is necessary to enable the preparation of company and group financial statements that are free from material misstatement whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these company and group financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing (New Zealand). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the company and group financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the company and group financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the company and group's preparation of the financial statements that give a true and fair view of the matters to which they relate in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company and group's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates, as well as evaluating the presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Our firm has also not provided any other services to the company and group in relation to the audit. Subject to certain restrictions, partners and employees of our firm may also deal with the company and group on normal terms within the ordinary course of trading activities of the business of the company and group. These matters have not impaired our independence as auditor of the company and group. The firm has no other relationship with, or interest in, the company and group.

Opinion

In our opinion the financial statements on pages 34 to 50:

- comply with generally accepted accounting practice in New Zealand;
- comply with International Financial Reporting Standards;
- give a true and fair view of the financial position of the company and the group as at 30 June 2014 and of the financial performance and cash flows of the company and the group for the year then ended.

Report on other legal and regulatory requirements

In accordance with the requirements of sections 16(1)(d) and 16(1)(e) of the Financial Reporting Act 1993, we report that:

- we have obtained all the information and explanations that we have required; and
- in our opinion, proper accounting records have been kept by OSPRI New Zealand Limited as far as appears from our examination of those records.

KPMG

21 August 2014
Wellington

Research and Disease Control Report

Our world renowned research, led by Dr Paul Livingstone (left), forms the basis of all of our TB programme design.

TBfree Research Report

FROM DR PAUL LIVINGSTONE, QSO
OSPRI TB ERADICATION AND RESEARCH MANAGER

The findings from TBfree New Zealand contracted research enable us to increase the cost-effectiveness of possum control programmes; improve outcomes for stakeholders and the wider public; and improve the scientific basis for decision-making, including determining future research directions. The ultimate aim is to assist TBfree New Zealand to deliver its objectives as cost-effectively as possible.

I would like to express my sincere thanks to both researchers and members of our Technical Advisory Group (TAG). TAG members volunteer their time and expertise to provide advice on our research direction and review research projects to ensure they remain of high quality and relevant to the objectives of the plan.

I trust that you find this year's report provides an informative insight into our on-farm TB disease control programme and our research direction, including some of the innovative research being undertaken.

DR PAUL LIVINGSTONE

COMPLETED RESEARCH

New control tools, methods of application and monitoring

Project title:
Optimising trapping effort: how many traps and trap-nights to catch enough possums for control or surveillance?
Project number:
R-10755
Research organisation:
Landcare Research

In 2013/14, TBfree New Zealand spent approximately $6 million trapping possums to obtain bodies for necropsy in order to measure progress towards eradication of TB. Research is in progress to determine the most cost-effective level of trapping to capture 80% of possums; whether pre-feeding could influence this; and determination of the optimum number of traps to deploy following detection of possums where detection surveys are used to target trapping work.

Work by Landcare Research has reached the following conclusions:

- Of possums caught during 10 nights of trapping, 80% were captured after four nights. There was a slight reduction in the number of nights required to trap 80% if they were fed pellets (on the ground or in bait stations) before, or during, trapping. However, the small gain in possums trapped may be more than offset by the extra cost associated with applying the pre-feed.
- A minimum of three traps should be set at each positive detection site. Setting more traps will catch more possums, but the capture rate per trap-night will decrease.
- The optimal number of traps to be set at a detection device, and the number of nights traps are set for, will depend upon the proportion of the population required to be captured, and the marginal costs of more trapping effort relative to the marginal benefits. The benefit is the value that each extra possum caught would contribute to the plan's objectives.
- If trapping for surveillance purposes only, where a kill of 50% (or less) is required, more lines for fewer nights would be more cost-effective than fewer lines for more nights.
- These results were obtained from individual trap lines. The ability to obtain an 80% kill over a control area will depend on the spacing of the trap lines, not just the number of nights trapped.

Immunology, vaccines and alternative diagnostic tests

Project title:
Extension of Genomic characterisation of NZ isolates of *Mycobacterium bovis* – better definition of *M. bovis* families and more accurate determination of evolutionary rate.
Project number:
R-30766-01
Research organisation:
AgResearch

TBfree New Zealand contracted AgResearch to investigate Whole Genome Sequencing (WGS – where the DNA of *M. bovis* is sequenced) to determine whether the extra resolution achieved by comparing the entire genome of bovine TB isolates would significantly improve the ability to answer diagnostic questions compared with current VNTR typing. The 2012/13 annual research report identified how WGS had provided additional clarity in two TB situations (Mount Algidus in the South Island and one in the Waikato), where possible sources of an outbreak looked identical using current investigative methods. These results indicated that the improved precision delivered by WGS would assist veterinarians to more efficiently manage trace-back and trace-forward investigations arising from newly identified infected herds. To successfully implement WGS data to aid in directing control efforts, it will be necessary to determine how rapidly the different lineages of *M. bovis* are evolving in New Zealand and what factors influence this change. To this end, AgResearch is collaborating with researchers in England and Scotland to evaluate the mutation rate of a range of *M. bovis* isolates from both domestic and wild animals from defined areas in New Zealand.

In addition WGS has been applied to *M. bovis* isolates from Waiuku and Taranaki with comparisons to likely sources in the West Coast, and also to current and historical isolates from wild animals and domestic stock in Southland.

Results

The characterisation of *M. bovis* lineages identified from new infected herds in Taranaki and Waiuku has better defined the relatedness of the isolates from within each of these areas and differentiated them from other potential sources of infection. Together with West Coast/Southland lineages, they have also greatly contributed to the establishment of a more robust genomic library.

Through the more precise DNA characterisation of *M. bovis* isolates achieved by WGS, this project has the potential to more accurately define the source of other bovine TB outbreaks. Its use should lead to more confidence in determining the source of new infected herds and a likely reduction in the total costs of these investigations.

Future research will aim to sequence and characterise additional genomes that will fill in the obvious gaps in the data set (including the Central North Island, Marlborough/North Canterbury and the West Coast lineages) by WGS, whilst continuing on work to determine *M. bovis* mutation rates.

New control tools, methods of application and monitoring

Project title:
Preventing weka exposure to Feratox during possum control (Stage 3).
Project number:
R-80687-03
Research organisation:
R&D Environmental Ltd

After finding weka were being killed by ingesting Feratox (encapsulated cyanide) possum bait, DOC restricted its use in areas where weka are present. In such areas (notably the West Coast of the South Island) this has forced the use of less efficient possum control methods, such as raised traps. This has prompted work towards a commercially viable, weka and rat-proof bait station that can effectively deliver Feratox to possums, while also preventing any bait spillage to the ground that weka may pick up. Since the initial research project in 2007/2008, the modified Sentry (Version 3 Sentry bait station) has been through several developmental stages to make improvements to protect weka from Feratox exposure.

Before agreeing to the use of Feratox in these bait stations, DOC required two replicate trials to be undertaken to provide sufficient information regarding the safety to weka. The Excluder design, initially included in replicate 1, improved upon the existing modified Sentry design but did not result in a sufficiently cost-effective outcome.

A Sentry bait station, modified to include a clip-on pressure plate, was compared to Connovation's modified Excluder bait station. A review of the two bait stations was conducted in 2012 and

concluded that the Sentry bait station retro-fitted with the clip-on pressure plate ('Version 3 Sentry') was a more promising option than the modified Excluder bait station. The researchers therefore recommended that, subject to modifications, the Version 3 Sentry bait station should be adopted in lieu of the Excluder for the comparative trial. This trial compared the possum kill efficiency of the Version 3 Sentry station with that of an industry-standard bait station using Feratox.

After demonstrating kill efficacy in this field trial, it was determined the Version 3 Sentry would be used for the second replicate trial to evaluate against DOC's requirements.

Outcomes and conclusions from this work are:

- All 25 weka with transmitters survived the operation and no other weka carcasses were found. Observations and trail cameras found no evidence of weka accessing the stations.
- A 5% possum bite mark index (BMI) was achieved over an area covered by four monitoring lines, while a fifth line received a 70% BMI and was possibly compromised by high river levels.
- The Version 3 Sentry bait station with a Striker bait holder will greatly reduce, although not eliminate, the risk to weka from Feratox when undertaking possum control in areas containing weka.

Epidemiology, ecology and modelling

Project title:
Post-control possum aggregation in forest and near forest farmland.
Project number:
R-10751
Research organisation:
Landcare Research

Declaring an area as TB-free requires confidence in modelled predictions that possums in an area are indeed free of the disease. Post-control possum aggregation is central to one of these models, the Spatial Possum TB Model (SPM). Research was, therefore, undertaken to increase understanding of the factors driving possum movement and aggregation patterns following control. Incorporating this information into the SPM will greatly improve site-specific predictions of disease persistence and lead to improved efficiency of possum control and disease surveillance in areas in the eradication phase.

Post-control possum aggregation in continuous forest and adjacent pastoral farmland, and the implications of aggregation for TB disease persistence, were examined by possum distribution mapping and animal movement monitoring for up to the three years after control, with the following interim conclusions:

- Significant male-biased possum sex-ratios suggest that male immigration from adjacent uncontrolled areas was a major contributor to post-control possum populations.
- Results from the forest site indicated that the primary driver of post-control possum distribution may have been possums seeking mates. At the farmland site, the distribution of native habitat patches appeared to be the main driver of possum aggregation.
- Possum distribution at both sites was highly clustered with a number of males located near each female.
- Post-control possum home ranges were bigger (averaging 95 hectares in forest and 56 hectares at the farmland site) than recorded in previous studies, particularly for male possums (91-116 hectares). The epidemiological impact of a larger home range on the persistence of TB is unclear, but it may prolong the persistence of infected possum populations. A key unknown is whether ill possums have the energy to maintain a large home range during the period in which they are infective.

Epidemiology, ecology and modelling

Project title:
Improving predictions and decisions with the Proof of Freedom utility.
Project number:
R-10730-01
Research organisation:
Landcare Research

Making accurate decisions as to whether TB has been eradicated from the wild animal population in an area is pivotal to the plan. The Proof of Freedom (PoF) software tool was developed to provide objective quantification of the probability that the disease had been eradicated from possums and other wild animals in an area. Without an accurate prediction tool, there would be inherent risks of ceasing possum control prematurely (with the risk of later re-emergence of TB problems) or conversely, of continuing needless further possum control after TB has been eradicated.

To further develop and improve the PoF utility tool and its use the following tasks were addressed:

- Staff training in the use of the PoF tool, interpretation of results and in prioritising future developments.
- To improve the practicality of the utility, or to improve predictions by incorporating additional sources of information such as possum detection data.
- Theoretical aspects of the TB eradication decision-making process were also explored along with the development of corresponding analytical techniques.

This work has resulted in development of a pair of modelling tools that are now well understood by users, are user-friendly and adapted to meet management needs. The work done in association with the third objective is ongoing, but has so far resulted in the production of a paper by Gormley et al: Declaring freedom from a wildlife disease: Economic optimisation of the threshold for stopping surveillance.

This paper explores the costs of making a wrong declaration that TB has been eradicated when it has not, or of continuing to undertake control after TB has been eradicated from the possum population. Decision theory is used to provide a framework for optimising the selection of a stopping threshold. A method is described for selecting an optimal stopping rule based on minimising expected costs, but also taking account of the risk tendencies of the decision makers. Thus, if the risk aversion factor is high, then the optimal stopping rule moves towards certainty, whereas if the risk aversion factor is low, then the optimal stopping rule will indicate stopping control before reaching a probability of eradication of 95%.

Epidemiology, ecology and modelling

Project title:
TB Eradication, Proof of Concept
Project number:
R-10731
Research organisation:
Landcare Research

Landcare Research was commissioned in 2011 to help develop and implement a multi-faceted six-year programme of field research aimed at measuring and validating progress toward achieving TB freedom in wild animals. The Hauhungaroa and Rangitoto range PoC area consists of approximately 122,000 hectares. It is anticipated that TB will be eradicated from possums in at least part of this area by as early as 2017. The research objectives were to: predict the duration of TB spillback risk from deer to possums; assist in the development and evaluation of new low-cost aerial baiting strategies for possum control; develop, field-test and assess the cost-effectiveness of ground-based possum control and wildlife surveillance approaches for deep forest; and quantitatively assess progress toward TB freedom in the PoC area.

Conclusions from the first three years of the programme are:

- Low-cost, cluster-sown or strip-sown aerial 1080 operations can often deliver high possum kill rates, though possibly with less consistency than current best practice. Dual pre-fed, high sowing rate aerial broadcast baiting should be adopted if near total kill of possums is required. Lower cost options could be considered for maintaining control of possum populations

that have already been reduced to low densities. Ground-based methods would be less cost-effective than aerial baiting for maintaining high-intensity control (>90% reduction) of possums in the area. Of the ground-based methods explored, whole-area, leg-hold trapping was more cost-effective than detection-targeted trapping, unless possum densities were extremely low.

- For direct TB surveillance (and control) of possums, there is no aerial survey option, so ground-based methods must be used. Provided there is a high probability (>90%) that previous control work has eradicated TB, both whole-area trapping and detection-targeted trapping could deliver the level of possum surveillance required to declare TB freedom in possums, for about $20-$30 per hectare. The use of widely spaced kill traps (0.2 traps per hectare) for possum surveillance is likely to be less cost-effective.
- Indirect TB surveillance, using sentinel wild pigs, is the cheapest option for quantifying TB freedom in possums. In the short to medium-term, this option is undermined by the risk of pigs detecting residual TB in deer, although this is of negligible epidemiological consequence while possum densities remain low. Because of their extensive home range, the location of pigs found with TB is a poor indicator of where TB was acquired. Deer surveillance is of relatively little value in declaring TB freedom, but is clearly of value in assessing whether there is still a risk of spillback infection from deer to possums.
- Epidemiological modelling of the various possum control histories for different sub-areas indicated high probabilities (>90%) that the possum populations in most of those sub-areas are already free of TB. However, TB-infected deer can remain alive for more than a decade, so the deer population may not be completely TB-free until close to 2020. Thus, while further control may not be required to eliminate TB from possums, it is clearly important to ensure possum densities do not recover to even moderate densities before 2020. If this happens, TB could become re-established in possums as a consequence of them feeding on TB-infected deer carcasses (which is one of the ways TB is thought to have originally spread to possums). Thus, a final round of aerial control (mostly scheduled for winter 2016) is needed, not only to further reduce the already small probability that any TB possums remain, but to remove the risk that possum densities could recover to the level at which TB could become re-established in the possum population while TB infected deer are still present.

Current evidence indicates that it should be feasible to declare TB eradication from all wild animals across at least 2.5 million hectares well before 2026, possibly as soon as 2020. Further, it appears to be feasible and affordable to declare TB freedom in possums several years earlier than that by using direct surveillance of possums immediately after the final control operations planned for each vector control zone, and even earlier still if the surveillance is conducted immediately before control (and is negative).

CONTINUING RESEARCH

Improved wild pig and possum surveillance to confirm TB eradication

Research to provide demonstrable evidence that TB can be eradicated from possums in the extensive forested areas of the Hauhungaroa and Rangitoto ranges (one of TBfree New Zealand's 'proof of concept' areas) has been contracted to Landcare Research. The aim of the research is to identify the most cost-effective way of using pig and possum surveys to provide a high level of confidence that TB has been eradicated from the possum population. This will involve comparing the cost and coverage of surveillance provided by pigs obtained from (a) recreational hunters, (b) 'unassisted' contracted hunters, and (c) contract hunters using released 'Judas' sentinel pigs to help them. It is likely that at least part of the area will also be included in a new project to evaluate TB surveillance of the possum population prior to aerial control. There will also be continued work to measure possum aggregation following control in part of this forest and adjacent farmland.

How much possum control is needed for TB eradication?

Surveillance for TB in wild pigs (or sometimes deer) is often an efficient tool for assessing TB freedom in possums, but is not always practical or affordable. Landcare Research will evaluate a range of factors that may have contributed to clearance of TB from possums (such as time since TB was last found in possums and the number and intensity of possum control operations imposed). The aim is to more precisely identify the scale, intensity, and duration of possum control required to eradicate TB from possums.

Possum attractants from female urine

Landcare Research will continue to evaluate synthesised volatile components from the urine of oestrous female possums to determine if singly, or together, they are as effective in attracting possums as natural oestrous female urine.

Biodiversity effects of possum control

A range of bird monitoring projects are in progress to assess the impacts on bird populations over time in areas where aerial 1080 has been used relative to paired sites where 1080 hasn't been used. This research has been contracted to Victoria, Canterbury and Otago Universities.

BCG vaccination of cattle

Landcare Research continues to evaluate the efficacy of BCG vaccine to protect cattle from infection when naturally exposed to free-living TB possums.

Finding possums in the dark

Rapid improvements in thermal imaging technology offer promise as a practical tool for identifying where possum control is needed. Research to evaluate this has been contracted to Landcare Research.

OUR NEW RESEARCH PRIORITIES FOR 2014/15

We consider numerous factors when evaluating the merit of a new research project or programme. Priority is given to research that will either:

- make the biggest impact to the plan's objectives;
- facilitate better decision making; or
- provide solutions to immediate operational issues or problems.

A new approach to determining whether TB has been eradicated from a possum population.

The current procedure involves increasingly intensive possum control, followed by wild animal and livestock disease surveillance. The results of the control and surveillance programmes are evaluated through the Proof of Freedom (PoF) utility to determine whether the probability of the population being TB-free is close to 95%. It can take three or more years surveillance to gain the data necessary to confirm this probability.

An alternative and more rapid approach, which is currently being evaluated by Landcare Research in the Hokonui Hills in Southland, is to catch and radio collar an appropriate number of possums throughout the control area. The whole area is then subjected to systematic surveillance with the aim of trapping and necropsying approximately 15% of the possum population to determine whether TB is present. Normal possum control is then undertaken, and the percentage of the population killed is determined by the proportion of possums with radio-collars that are killed. The data is then processed through the PoF utility. Provided (i) the relative percentage of possums sampled and necropsied is sufficiently high (between 12-18%); (ii) no TB is diagnosed in the possums; and (iii) the kill of the remaining possum population is sufficiently high, then the output from the PoF utility is likely to indicate that the possum population is free of TB.

Estimating possum to cattle TB transmission rates

Currently we lack an estimate of the rate of transmission of TB from possums to cattle. Knowing this rate would inform TB models and improve the accuracy of predictions. This in turn would enable better targeting of possum control.

Landcare Research has been contracted to study the transmission of *M. bovis* from possums to cattle under natural conditions. The research will be undertaken in an area with a recent history of TB in possums (14% prevalence in 2010 and 1.6% in 2012) and no history of possum control. TB test-negative cattle will be released into the area and at the same time the TB prevalence and density of possums will be determined. Cattle will be removed from the area after nine months and re-tested with both intradermal tuberculin and gamma interferon test. All test-positives will be slaughtered and necropsied. The area will then receive possum control, and the prevalence of TB in the possum population as well as the population density will be determined. Thus the estimated number of TB possums in the area will be directly related to the number of cattle found infected after grazing in the area, which should provide an empirical estimate of the transmission rate between possums and cattle.

New ways to lure possums

Effective lures for possums could greatly improve the efficacy of possum traps, toxic baits or detection devices. Current investigation of olfactory lures (see "Possum attractants from female urine") so far suggests only a local effect (metres). New work is planned to investigate acoustic lures as a potential longer range attractant. Four specific acoustic

lures, including possum calls, will be evaluated by research provider, Novel Ways in a number of different habitat.

Possum home range and capture parameters

The PoF utility and Spatial Possum Model (SPM) are both used for making decisions on whether TB has been eradicated from a possum population. Two fundamental parameters within these models are g_0 (the maximum daily probability of possum capture when a trap is placed at the centre of its home range) and σ (the radius of its home range). Currently, the values used are based on estimates derived from one forest-based study. Given the importance these values play in determining the probability that TB has been eradicated, further measurements of these parameters are required for the farmland and patchy bush type habitat with low possum densities often involved in TB eradication.

Research will be undertaken by Landcare Research in four different areas containing low possum densities. A random sample of possums within each of the proposed areas will be caught and fitted with radio collars with a mortality sensor.

At least five possums will also be fitted with GPS collars. The areas will then receive normal possum control, but operators will additionally record the radio collar number of marked possums together with their GPS locations. Any collared but untrapped possums will, if possible, be tracked and captured. The information on radio-collared possums that are killed will be used to calculate the percent of the population killed. Home range data from the GPS and radio-collared possums will provide an empirical value for σ, and further modelling from this will be used to derive a value for g_0.

Reducing costs of possum recovery for necropsy

Current approaches to eradication of TB from possums involve deployment of possum detection devices, followed by trapping around positive detections to recover possums for necropsy. This requires costly daily visits to trap sites. A possible alternative is to use cyanide baits instead of traps, allowing for less frequent site visits and/or more possums being killed for recovery over time for the same effort. Landcare Research will compare the use of Cyanara50 cyanide paste on two thirds of a routine operation with traps on the other third. The block receiving cyanide will be divided in half, with one half receiving four cyanide baits placed around each positive possum detection, and the other half receiving 8-10 cyanide baits. Traps and cyanide baits will be checked daily, and the number of kills obtained per positive detection recorded. Possum carcasses will be left in place for up to three nights to determine the level of decay and suitability for necropsy and laboratory diagnostics. Costs will be compared for each treatment.

Technical Advisory Group (TAG)

This group plays a vital role in guiding the direction of our research programme, as well as reviewing all contracted research projects. We greatly value the commitment of TAG members.

DR HELEN BLACKIE
BOFFA MISKELL

Helen has been a member of TAG since 2012 and has expertise in invasive species management and animal ecology. Helen is an Associate Principal and Senior Ecologist at Boffa Miskell.

DR LESLEY COLLINS
UCOL

Lesley was appointed to TAG in 2010. She has expertise in genomics and biostatistics. She is a lecturer in health science at UCOL and also works as a Senior Bioinformatician at Collins Bioinformatics.

DR PHIL COWAN
LANDCARE RESEARCH

Phil has been a member of TAG since 2012. He has expertise in animal ecology and pest management and is the Science Leader (Pest Control Technology) at Landcare Research.

DR GEOFF DELISLE
AGRESEARCH

Geoff has been a member of TAG since 2012. He has expertise in the fields of immunology, vaccines and diagnostic testing.

DR ALASTAIR FAIRWEATHER
DEPARTMENT OF CONSERVATION

Alastair has been a member of TAG since 2005. He has extensive experience in the fields of animal ecology and pest management. Alastair is the Department of Conservation Technical Advisor, Threats.

DR PAUL LIVINGSTONE QSO (CHAIR), OSPRI

Paul has vast experience and expertise in all TB-related fields. In 2011, he was awarded the Queen's Service Order for services to veterinary science, particularly for work on bovine TB. Paul is OSPRI's TB Eradication & Research Manager.

DR GRAHAM MACKERETH
ESR

Graham has been a member of TAG since 2009. He has expertise in epidemiology and mathematical management. He also has knowledge of mathematical modelling. He is currently the Co-ordinator of the Health Intelligence Team at ESR.

BRENT ROHLOFF
OSPRI

Brent was recently appointed to TAG due to his extensive pest management experience. He is OSPRI's Programme Manager for the Southern South Island management area.

DR JANE SINCLAIR
OSPRI

Jane has been a member of the TAG group since 2010. After 26 years in mixed clinical practice, she joined the Animal Health Board in July 2006 and completed a Masters in Epidemiology at Massey University in 2009. Jane is OSPRI's Area Disease Manager for the Northern North Island.

KIRSTEN VRYENHOEK
OSPRI

Kirsten is OSPRI's Research Co-ordinator, responsible for managing TAG and the day-to-day management of the research programme.

Disease Control Report

The National Bovine Tuberculosis Pest Management Plan sets very challenging objectives within a constrained timeframe and level of funding. We rely on sound science and technical processes to help us make the right disease control decisions. Our research and development programme also supports continuous improvement by investigating ways to achieve better results.

INFECTED CATTLE AND DEER HERDS, REACTORS AND TUBERCULOUS ANIMALS

TB was identified in 60 new cattle herds, a decrease in new herd infections of 24% compared to 2012/13. Seventeen of these newly identified infected cattle herds were located in Vector Free Areas (VFA) compared to 26 in 2012/13. Some of these cases resulted from finding several clusters of TB-infected dairy herds in 2012/13, from which infected animals had been moved to other herds before the disease was detected. Of the 17 newly infected herds in VFAs, nine were in the North Island and eight were in the South Island. Forty-three of the new infected herds were located in Vector Risk Areas (VRA) compared to 51 in 2012/13. Investigations found that infected wild animals, primarily possums, were the source of 64% of new TB-infected herds identified within VRAs.

The increase in infected herds in 2012/13 had a flow-on effect for the annual infected herd period prevalence in 2013/14, which remained at 0.21%. Before New Zealand can be officially declared free of bovine TB by the *World Organisation of Animal Health*, the infected herd period prevalence must be less than 0.2% for at least three consecutive years. It is important to maintain the focus on eradication of TB from wildlife, primarily possums, in order to remove the source of infection for farmed cattle and deer.

Table 1: Infected herds; period infected herds; TB reactors and tuberculous animals for 2013/14 compared to 2012/13

	Cattle	Deer	Cattle and Deer
TB infected herds at 30 June 2014 (herds infected as % of total herds)	69 (0.1%)	3 (0.11%)	72 (0.1%)
Difference from 30 June 2013 (%)	-18 (-21%)	-2 (-40%)	-20 (-22%)
TB infected herds during 2013/14 [1] (period prevalence %)	145 (0.22%)	5 (0.19%)	150 (0.21%)
Difference from 2012/13 (%)	+4 (+3%)	-1 (-17%)	+3 (+2%)
Number of TB reactors in 2013/14	775	231	1006
Difference from 2012/13 (%)	-519 (-40%)	-35 (-13%)	-544 (-36%)
Number of tuberculous animals in 2013/14 [2]	166	0	166
Difference from 2012/13 (%)	-220 (-57%)	-10 (-100%)	-232 (-58%)

Table 2: DCAs and summary statistics for cattle and deer herds combined

	MCAs	STAs (annual and biennial)	Surveillance Areas	New Zealand
Land area	55,910 km^2	98,733 km^2	113,722 km^2	268,365 km^2
Total herds at June 2014	5812	20,835	43,563	70,210
Infected herds at June 2014	51	13	8	72
Infected herd period prevalence % for 2013/14	1.67%	0.1%	0.07%	0.21%

[1] Number of infected herds for 2013/14 includes herds classified as infected at 1 July 2013, together with new herds found infected during the 2013/14 financial year.

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

In identifying sources of infection for herds in VFAs, the NAIT and MINDA databases proved valuable for tracing animals. A software tool has been developed to assist in tracing cattle movements to and from newly infected herds. Together with data from NAIT and MINDA, this tool has reduced the time and resources needed to identify infected animal movements.

The number of infected deer herds decreased from five to three in 2013/14. There were approximately 35,000 fewer deer tested than in 2012/13. No deer were found to be infected with TB in 2013/14 compared to 10 in 2012/13.

Tables 1 and 2 summarise infected herd and TB data.

CATTLE

Infected cattle herds

At 30 June 2014, there were 69 infected cattle herds compared to 87 at 30 June 2013. The herd infection rate for 2013/14 was 0.9 per 1000 herds, and the herd clearance rate was 66%.

Wild animals were the source of infection for 56.6% of all infected herds (58% of all new herd infections and 64% of new herd infections in VRAs). Twenty-nine percent of all new herd infections were movement-related, either from an existing infected herd, or due to movement from herds that, at the time, were not considered infected. See Table 3 Sources of infection for newly-infected and all infected cattle herds in 2013/14.

Figure 1, page 65, shows the fall in infected herd numbers since June 2002 by vector area status (VFA, VRA).

Table 4 shows the large difference possum control has made since 1992/93, when there was minimal possum control and infected possums were still spreading from VRA boundaries. By 2013/14 widespread and effective possum control had been undertaken across most VRAs. It has resulted in the reduction of approximately 830,000 hectares of VRA since mid-2011.

Table 3: Sources of infection for newly-infected and all infected cattle herds in 2013/14

	Cattle introduced from infected herds	Cattle introduced from non-infected herds	Residual herd infection	Wild animal	Formed from an infected herd
All newly infected herds (VRA and VFA)	8 (14%)	9 (15%)	5 (8%)	34 (58%)	3 (5%)
Newly infected herds in VRA only	5 (11%)	4 (8%)	5 (11%)	30 (64%)	3 (6%)
All infected herds [3]	16 (11.2%)	25 (17.5%)	14 (9.8%)	81 (56.6%)	7 (4.9%)

Table 4: Disease data over three time periods for cattle and deer herds located in VFAs and VRAs

Vector area status	Infected herd period prevalence per cent			Herd breakdown rate per 1000 herds			Infected herd clearance per cent		
Period	1992/93	2002/03	2013/14	1992/93	2002/03	2013/14	1992/93	2002/03	2013/14
VFA	1.3%	0.15%	0.07%	6.8	0.73	0.3	68%	83.3%	89%
VRA	14.9%	3.8%	0.83%	50.3	13.21	3.3	32%	58.5%	57%
Total	3.6%	0.91%	0.21%	13.4	3.3	0.9	42%	61.4%	65%

[3] All infected herds includes herd that were infected at 1 July 2013 and all herds found infected during 2013/14. A research herd where cattle are experimentally infected is excluded from this data set. Five infected herds in the VRA for which a cause has not been identified were excluded from the data set.

[4] This includes a number of calves from groups of infected animals that were taken as reactors and slaughtered

Cattle testing and reactors

Cattle testing data is summarised in table 5, which compares the number of TB tests carried out on cattle – and the number of reactors to tests – in 2012/13 and 2013/14. The decrease in cattle tested in 2013/14 is partly due to a reduction of annual testing areas involving about 2000 herds.

During the year, 8424 cattle tested positive to the skin test and 231 were slaughtered without further testing. The remaining 8193 cattle were administered blood tests.

Figure 2 shows the trend in cattle reactors from 2001/02 to 2013/14. There was an increase in the number of cattle reactors slaughtered in 2012/13 and then, as predicted last year, a return to the generally lower trend of recent years.

Tuberculous cattle

The number of tuberculous cattle includes the total number of cattle (including reactors and cattle found during routine slaughter) with TB-like lesions identified as infected following the analysis or culture of *M. bovis* from tissue.

Figure 3 illustrates the long-term trend for TB found in cattle from 2001/02 to 2013/14 and shows the continued fall following the spike that occurred in 2012/13.

Table 5: Cattle TB test results for 2012/13 and 2013/14

Cattle testing	2012/13	2013/14
Primary skin tests on cattle	4,374,962	4,213,896
Cattle positive to primary skin tests	6178	8424
Skin test-positive cattle slaughtered	575 [4]	231
Skin test-positive cattle blood tested	5603	8193
Blood test-positive cattle	462	377
Ancillary parallel blood test-positive cattle	257	167
Total cattle reactors slaughtered	1294 (3/10,000 tested)	775 (2/10,000 tested)

Figure 1: Number of infected cattle herds

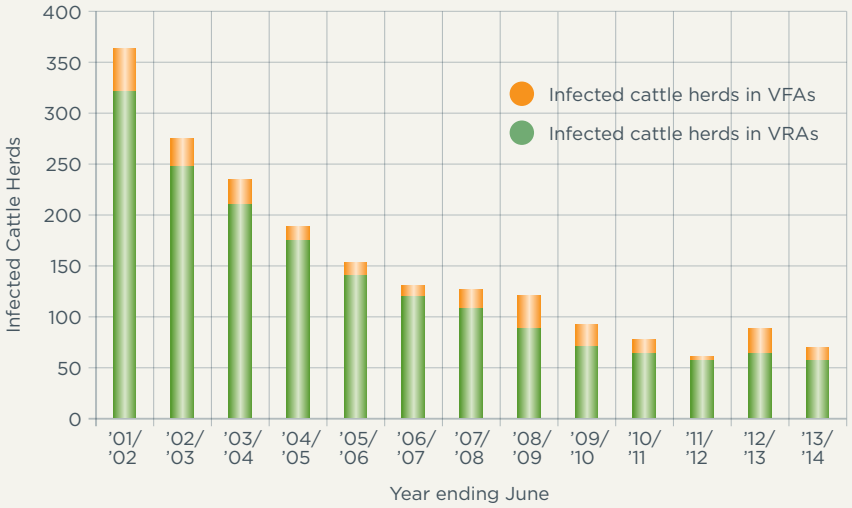


Figure 2: Number of cattle TB Reactors

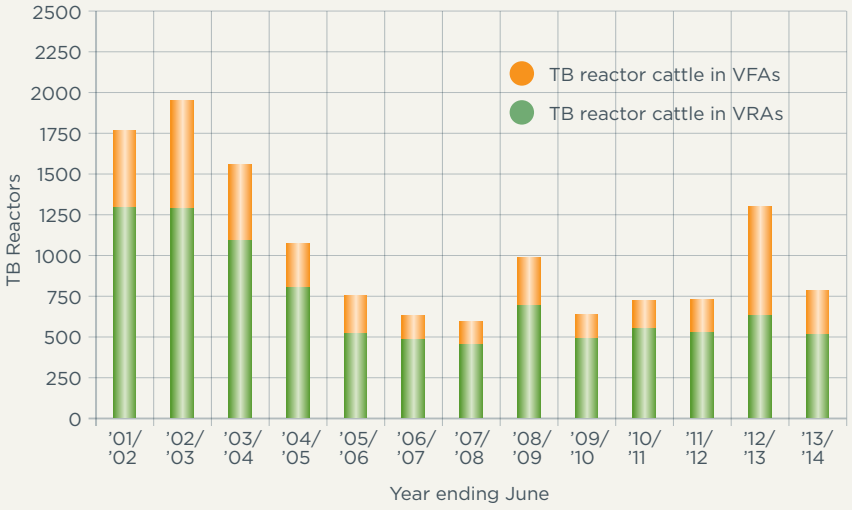
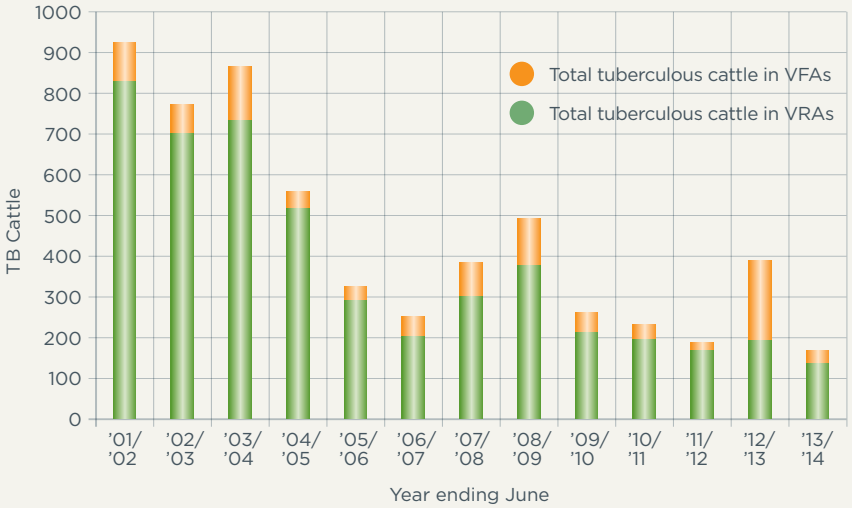


Figure 3: Number of tuberculous cattle



DEER

Infected deer herds

Three deer herds were classified as infected at the end of 2013/14, all located in South Island VRAs.

Figure 4 shows the downward trend in the number of infected deer herds since June 2002. The reduction since 2003/04 is largely due to maintaining low possum densities over large areas of New Zealand.

Deer testing and reactors

Deer testing data is summarised in table 6, which compares the number of TB tests performed and the number of reactors to tests in 2012/13 and 2013/14. In 2013/14, 252,682 skin tests were performed on deer compared to 287,400 in the previous year.

During the year, 1925 deer tested positive to the mid-cervical skin test and 165 of these were slaughtered without further testing. The remaining 1760 deer were administered serial ancillary tests.

Figure 5 shows the trend in deer reactors from 2001/02 to 2013/14 by TB risk area.

Tuberculous deer

No tuberculous deer were identified in 2013/14.

Figure 6 shows the trend in number of tuberculous deer since 2001/02. The number of tuberculous deer includes the total number of deer (including reactors and deer found during routine slaughter) with TB-like lesions – or otherwise – identified as infected following analysis or culture of *M. bovis* from tissue.

Table 6: Deer TB testing results for 2012/13 and 2013/14

Deer testing	2012/13	2013/14
Primary skin tests on deer	287,400	252,682
Deer positive to primary mid-cervical test	2113	1925
Primary test-positive deer slaughtered	192	165
Primary test-positive deer ancillary serial tested	1921	1760
Ancillary serial test-positive deer	74	66
Ancillary parallel test-positive deer	0	0
Total deer reactors slaughtered	266 (9/10,000)	231 (9/10,000)

Figure 4: Number of infected deer herds

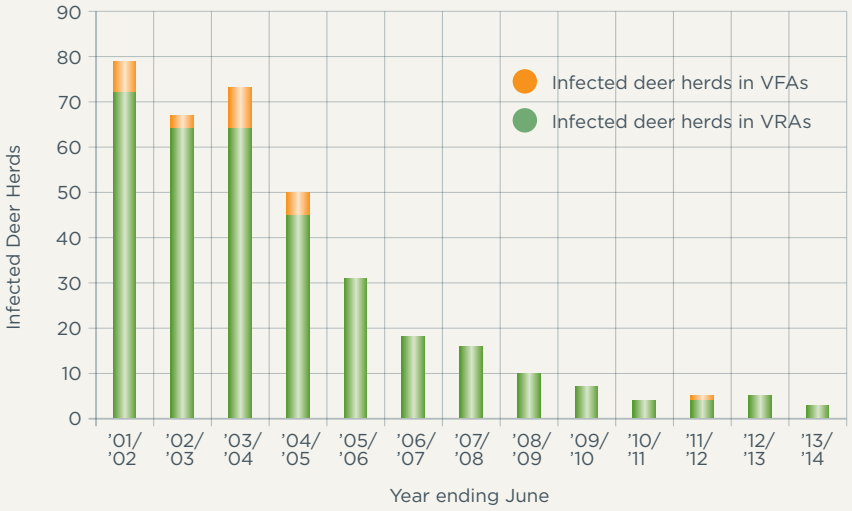


Figure 5: Number of deer TB Reactors

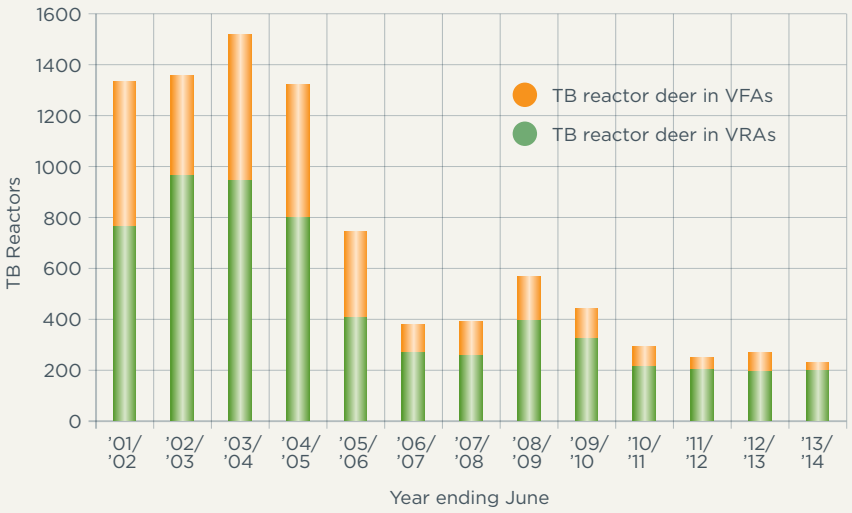
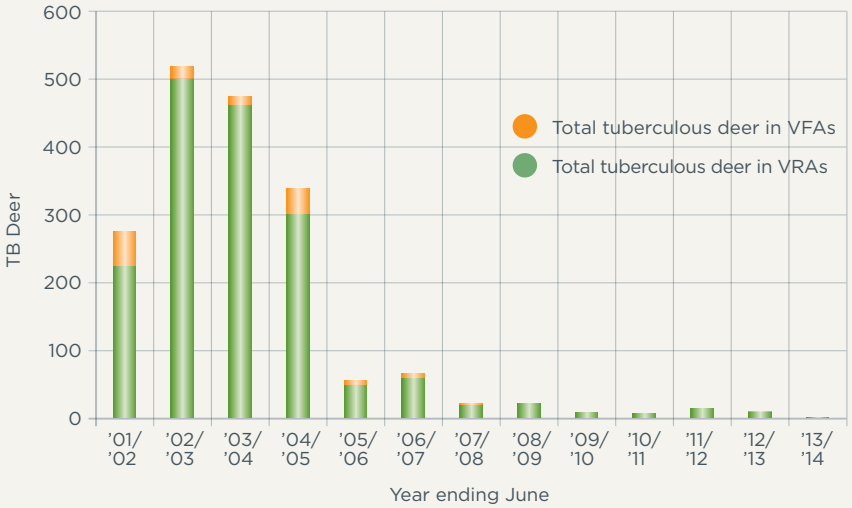


Figure 6: Number of tuberculous deer



Disease Control Regional Summary

NORTH ISLAND ACTIVITY

The North Island is divided into two areas – the Northern North Island (NNI) above a line drawn from north of Wanganui to East Cape; and the Southern and Eastern North Island (SENI), below the line.

There were seven infected herds in NNI at year end, with some cases in VFAs illustrating how stock movements continue to be a cause of disease spread. This was balanced by a good clearance rate of infected herds during the year.

A series of new herd infection cases in Northland dating from 2012 was contained to the original single dairy herd and six dry-stock properties which had received calves from it. The dry-stock herds have now been cleared of TB, and the original infected dairy herd is expected to be cleared early in 2014/15. Surveys carried out so far indicate the disease has not spread to local wild animal populations.

A Waikato dairy herd identified with TB early in June 2013 was closely linked to a herd in the Auckland region – which also became infected through stock movements. In Taranaki, six infected herds were all cleared of infection during the year, leaving only one infected dry-stock herd in the region, which is connected to the original dairy herd infections. A cluster of four infected herds at Waiuku is still being investigated. Two infected dairy herds in Waikato illustrated the threat that anergic animals (infected animals which fail to react to TB tests) pose to the eradication of TB.

In the SENI management area, there were just two infected herds at year end. One of these is a purposefully infected research herd. The other is in Wairarapa and only recently detected, potentially representing a recurrence of infection from some 10 years ago in the same herd.

A reduction of the southern North Island MCA by 113,000 hectares was welcomed during the year by 124 farmers who no longer have to pre-movement test their animals. The area remains on annual testing for all cattle over 12 months of age and all deer over 15 months of age.

SOUTH ISLAND ACTIVITY

The South Island is divided into two management areas for TB management purposes. The Northern South Island (NSI) contains a 3.6 million hectare TB risk area (VRA) and includes Canterbury north of the Rangitata River, and the Marlborough, Nelson, Tasman and West Coast regions. The Southern South Island (SSI) management area includes Canterbury south of the Rangitata River, and the Otago and Southland regions.

Progress toward objectives is good in both areas. The VRAs were reduced in both management areas, with 118,000 hectares in the NNI and 54,000 hectares in the SSI being declared free of TB in wild animals during the year. Wild animal surveys planned for 2014/15 may confirm further VRA reductions in the year ahead.

Possum control operations have continued to prevent the spread of disease in wildlife, and there was no evidence of any expansion of VRAs during the year.

Integrated ground and aerial possum control operations in Southland's Hokonui Hills (a proof of concept eradication area) were successfully completed. It is possible that may be the final TB possum control work required in the area. Intensive wild animal surveillance will continue to help determine if TB has been eradicated.

At year end, there were 44 infected herds in the NSI and 17 in the SSI. Most of these were in the West Coast, where blood testing continues to remove TB animals from some problematic herds and identifies otherwise undetectable infection. This should reduce the risk of recurring within-herd infection. These herds are being kept under movement restrictions for longer periods to minimise the spread of the disease through movement of animals with undetected TB.

Investigations into new herd infections in both management areas confirmed that TB-infected wild animals were the source of the majority of herd infections. Most infected herds are located in the infected herd suppression areas, where possum control is limited and the frequency of control work varies. As the plan progresses, more possum control resources should become available for these areas as eradication is achieved elsewhere.

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

TBfree

NAIT

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