

Pests and biosecurity

Environment Canterbury's role is as the lead agency for managing pests under the regional pest management strategy and as a supporting agency for pests under national pest management strategies



» Delivering on community outcomes

Desired outcomes

- A strong economy.
- Business and farming activities do not harm the environment.
- The environment, in general, is to be looked after.
- Native plants and animals can thrive.

Progress this year

No total control plant pests set seed at any of the 229 known sites.

The area of boneseed on land outside the Port Hills zone has not increased.

Control of boneseed was undertaken on 689ha of the approximately 2950ha within the Port Hills zone.

A programme in Kaikoura, Waikari and Ashburton reduced rook numbers from 14 to 10.

Rabbit numbers were maintained at low levels in most areas. However, with rising immunity to rabbit haemorrhagic disease in some areas, an increase in the use of traditional control work has been required.

Wallaby control programmes were effective at maintaining numbers within specified levels in the South Canterbury containment area (Hunter Hills), with no known populations established outside this area.

The number of cattle and deer herds infected with bovine Tb is now 19, below the target of 27.

Effect on the four well-beings:



SOCIAL



ECONOMIC



ENVIRONMENTAL



CULTURAL

For some landowners, the cost of controlling pests can adversely affect short-term economic well-being. However, there is also benefit as a result of increased production from land due to pests being controlled.

There is the potential for the use of some pesticides to negatively impact on indigenous biodiversity, affecting environmental well-being. This is mitigated through the application of best practice and strict observance of resource consent conditions.

» Highlights

We continued to be successful in reducing vectors (carriers) of bovine Tb, with the flow on effect that the number of infected herds was reduced to 19, well below the target of 27. We managed 113 vector control operations in conjunction with the Animal Health Board.

A co-ordinator was appointed to provide advice on the best rabbit control methods to help farmers respond to the decreasing effectiveness of rabbit haemorrhagic disease as a bio-control agent.

» We also . . .

- Consulted with 10 pest rating liaison committees on the implementation of the Regional Pest Management Strategy. Undertook inspections on rabbit-prone land to identify properties with rabbit densities above level 3 on the modified McLean scale and in the wallaby containment area (Hunter Hills), properties with wallaby densities above level 3 on the Guilford infestation scale.
- Carried out possum control on behalf of the Banks Peninsula community. Canterbury's first Community Initiative Pest Programme is well into its second successful year.
- Carried out rabbit control work on Banks Peninsula bringing the rabbit population to an all-time low.
- Undertook pest control work to protect indigenous biodiversity in the Port Hills, Kakahu Forest, Ashburton Riverbed, Burke's Pass and Hanging Rock (Opuha) areas from the impact of feral cats, mustelids, possums and rodents. Feral goats were controlled on Banks Peninsula.

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Environment Canterbury acknowledges and thanks the volunteers on pest advisory groups and pest rating district liaison committees providing invaluable local input and feedback to guide the planning for animal and plant pest management. Also, the contribution made by hard working volunteer groups in controlling the spread of wilding conifers is greatly appreciated.

- Carried out enforcement action where landowners/occupiers failed to voluntarily control rabbit and wallaby densities. Notices of Direction were served on 47 properties to undertake rabbit control (68 last year) and one wallaby operation. Generally, rabbit haemorrhagic disease continued to be effective, except in eastern Mackenzie, Kurow, Hakataramea, and parts of Waikari and Amuri, where increased immunity was noted.
- Undertook inspections to monitor infestations of gorse, broom, variegated and nodding thistle and total control plants, including African feather grass, African love grass, baccharis, bur daisy, coltsfoot, entire marshwort, saffron thistle, white-edged nightshade and nassella tussock.
- Undertook operations at 55 sites to remove African feather grass, African love grass, baccharis, bur daisy, coltsfoot, entire marshwort, saffron thistle and white-edged nightshade prior to seeding.
- Released biocontrol agents, including broom leaf beetle, broom gall mite, broom shoot moth and boneseed leaf roller.
- Investigated new biocontrol agents for old man's beard, woolly nightshade, tradescantia, broom, banana passionfruit, Japanese honeysuckle and barberry.
- Undertook surveillance and control operations to protect indigenous biodiversity, including programmes to control boneseed, thyme, phragmites, egeria, lagarosiphon, Darwin's barberry, banana passionfruit, bell heather, and old man's beard.
- Undertook a wilding conifer control programme on Glen Lyon Station, in the Upper Rakaia, Waimakariri and Hurunui catchments.
- Undertook surveillance for potential pests, including Chilean needle grass, matt grass, puna grass, Argentine ants, sulphur crested cockatoos and beggars tick.
- Undertook inspections at 85 sites to control an incursion of purple loosestrife.
- Inspected 57% of commercial nurseries (88), as well as a sample of fairs and other outlets and events where plant pests could be sold.
- Investigated the ecology of nassella tussock.
- Carried out enforcement action where landowners/occupiers failed to control plant pests. Notices of Direction were served on 219 properties.
- Made submissions on a discussion paper on the options leading to the National Bovine Tb Strategy review.

» Levels of service This section reports on performance for 2007/08 against Annual Plan targets

1. Eradicating total control plant pests to reduce their impact on production from land and on biodiversity

Measure

The number of sites infested with total control plants where seed is set.

Target 2007/08
None.

Achieved

The number of known sites has increased by two to a total of 229. All known sites were inspected and 55 of these required control measures. All plants were prevented from seeding.

Number of sites	
2004/2005	None
2005/2006	None
2006/2007	None
2007/2008	None

Note: Total control plant pests are African feather grass, African love grass, baccharis, bur daisy, coltsfoot, entire marshwort, saffron thistle, taurian thistle and white-edged nightshade.

Source: Environment Canterbury.

2. Regulating the spread of gorse and broom to limit the impact on production from land

Measure

The change in the area of farm land affected by gorse and broom.

Target
No change.

Achieved

What's changed since the 2006-16 LTCCP?

The 2006-16 LTCCP proposed that a new measure and target to more comprehensively reflect the contribution made by the level of service towards the community outcomes would be introduced in the 2007/08 Annual Plan.

4. Regulating the spread of nassella tussock to reduce the impact on production from land

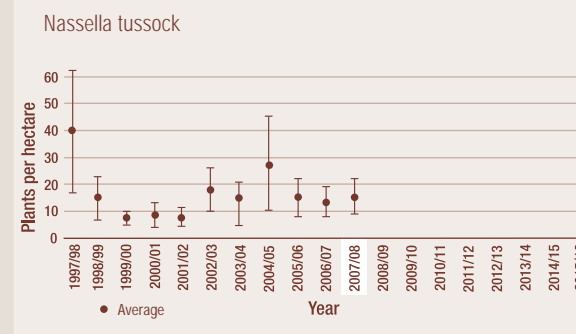
Measure

The number of nassella tussock plants per hectare (based on randomly located transects).

Target 2007/08

A decline in the number of nassella tussock plants per hectare.

The number of plants per hectare has had equilibrium of 17 plants per hectare over the past six years.



Notes: Error bars show the range within which 95% of measurements lie. The dot shows the average of all measurements.

Seasonal trends can affect results, with higher seed germination in a dry season.

The graph in the 2006-16 LTCCP showed results plotted one year later than they should have been. This has been corrected in the above graph.

Source: Environment Canterbury.

3. Eradicating boneseed from outside the Port Hills zone to protect indigenous biodiversity

Measure

The area outside the Port Hills zone infested with boneseed is controlled to prevent seed setting.

Target 2007/08
See table below.

Achieved

Note: This programme now covers the total known area of boneseed outside the Port Hills zone - 373ha.

Total area under control	
2004/2005	250ha
2005/2006	373ha
2006/2007	373ha
2007/2008	373ha

Source: Environment Canterbury.

5. Eradicating rooks to reduce their impact on production

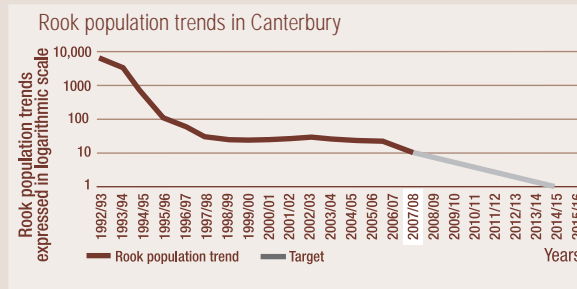
Measure

The number of rooks in Canterbury is progressively reducing.

Target 2007/08

All rooks eradicated by 2015.

Rook numbers have reduced from 14 to 10. *Achieved.*



Source: Environment Canterbury.

6. Regulating the density of rabbits to limit their impact on production and on the environment

Measure

The effectiveness of rabbit control programmes or rabbit haemorrhagic disease, on properties where rabbit densities have exceeded level 3 on the modified McLean scale, in reducing the density to below level 3.

Target 2007/08

100% effective on all properties.

Achieved

Note: Notices of Direction were served on 47 properties. When Notices of Direction are not complied with, action on default is implemented and the required work is undertaken by ECan within 12 months on 100% of the affected properties.

Effectiveness	
2004/2005	100%
2005/2006	100%
2006/2007	100%
2007/2008	100%

Note: The modified McLean scale has eight levels, ranging from 1, no rabbits present, to 8 where rabbits are likely to be seen in extremely large numbers. At level 3, odd rabbits are seen; signs and some buck heaps show up, with pellet heaps spaced 10m or more apart on average (refer to the Regional Pest Management Strategy 2005 for further information). Where rabbit levels exceed level 3 and rabbit haemorrhagic disease is likely to be effective, no formal control programme is required.

Source: Environment Canterbury.

7. Regulating the spread and density of wallabies to limit their impact on biodiversity and production from land

Measure 1

The effectiveness of wallaby control programmes, on properties in the wallaby containment area where wallaby densities have exceeded level 3 on the Guilford wallaby infestation scale, in reducing the density to below level 3.

Target 2007/08

100% effective on all properties.

Achieved

Note: Enforcement action is currently in progress on one property.

Effectiveness	
2004/2005	100%
2005/2006	100%
2006/2007	100%
2007/2008	100%

Note: The Guilford wallaby infestation scale has levels, ranging from 1, no sign seen, to five with high probability of seeing wallabies. At level 3, frequent faecal and track signs are seen, but only in isolated pockets, with likelihood of seeing some wallabies (refer to the Regional Pest Management Strategy 2005 for further information).

Source: Environment Canterbury.

Measure 2

The number of wallaby populations outside the wallaby containment area.

Target 2007/08

None.

Achieved

One wallaby was sighted and destroyed.

Number of populations	
2004/2005	None
2005/2006	None
2006/2007	None
2007/2008	None

>> Financial summary

8. Managing bovine Tb vector control to protect exports of beef and deer products

Measure

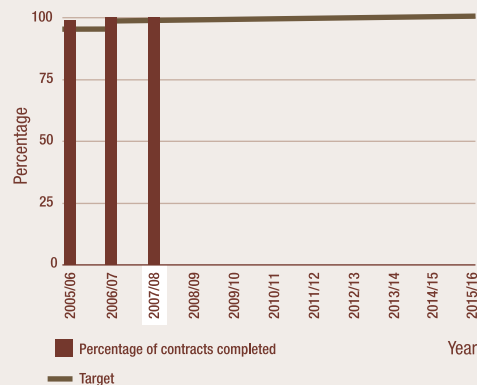
The percentage of contracts where vector control has been completed to the specifications of the Animal Health Board.

Target 2007/08

100%

Achieved (100%)

Bovine Tb infected herds



Note: Achievement of these targets is dependent on others involved in the beef and deer industry complying with the Animal Health Board's bovine Tb management requirements.

Source: Animal Health Board disease testing information.

What's changed since the 2006-16 LTCCP?

This new measure and target replace those in the 2006-16 LTCCP, which related to the number of cattle and deer herds infected with bovine Tb. Achievement of the previous target was dependent on others involved in the beef and deer industry complying with the Animal Health Board's management requirements. This new measure and target better reflect Environment Canterbury's contribution to the community outcomes.

\$000	Actual 2007/08	Budget 2007/08	Actual 2006/07
Total Expenditure	9,320	10,278	8,646
Funded by:			
General rates	2,201	2,201	2,094
Targeted rates	1,780	1,754	2,029
Grants	5,506	6,007	4,842
User pays and other	408	149	221
Total Funding	9,895	10,111	9,186
Reserves Increase/(Decrease)	575	(167)	540

The contribution to the Varroa Bee Mite control programme was returned following the cessation of operations. These funds will be used to fund other biosecurity work. The Animal Health Board programme for Bovine TB control decreased this year reducing both income and expenditure.

Capital Expenditure

Capital expenditure associated with this group of activities was funded from general funds and included as depreciation expense.