Quick Guide
CANTERBURY REGIONAL
PEST MANAGEMENT PLAN 2018–38
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INTRODUCTION

What is the Canterbury Regional Pest Management Plan?

It tells us how we will manage existing and emerging pest threats, and prevent damage to biodiversity and production. It is a regulatory document under the Biosecurity Act 1993, so we must follow its rules and meet its objectives.

The plant and animal pests listed in the Plan have been decided in consultation with our communities. They were chosen because they pose a significant threat to our region’s economy (by impacting production), tikanga Māori, health, production, recreational spaces and activities, and/or indigenous biodiversity.

The Plan covers the whole Canterbury region, from the Kaikōura district in the north to the Waitaki district in the south. It will be our overall framework for pest management work until 2038.

Who is this guide for?

This guide provides a summary of the Canterbury Regional Pest Management Plan 2018-38. It talks about the pests we are most focused on in Canterbury and how landowners and Environment Canterbury will manage them. If you are affected by certain pests, we recommend you visit www.ecan.govt.nz/pests and read the relevant pages in the full Plan. Contact us if you need help managing pests or if you see a plant or animal you think may be new, becoming invasive or you’re unsure of. Environment Canterbury can help you identify unknown plants or animals. Call us on 0800 324 636.
HOW DOES THIS PLAN FIT INTO THE BIGGER PICTURE?

For a biosecurity system to be effective, good policies and practices must be in place not only in our region but nationwide. The Canterbury Regional Pest Management Plan is just one component of a nationwide biosecurity system that protects New Zealand’s economic, environmental, social and cultural values from the threat of pests. Every regional council has a pest management strategy or plan to deal with pests in its own region. In addition, central government is responsible for preventing pests entering New Zealand and for coordinating or implementing incursion management where eradication is achievable.

How does it differ from the Canterbury Regional Pest Management Strategy?

The former Canterbury Regional Pest Management Strategy, operative from 2005 to 2017, is no longer used. The Canterbury Regional Pest Management Plan replaced it in 2018 and is a result of us updating our approach to pest management so it meets our current and future challenges.

Key features:

- New problem pests added including feral goats (on Banks Peninsula), Russell lupins, wilding conifers.
- Good Neighbour Rule added requiring land occupiers to protect spread of pests from neighbouring properties, including the Crown.
- More flexibility in funding including a shift to a targeted rural rate for pests that threaten production, a general rate for pests that threaten biodiversity, and a combination of both where needed.
• Better consistency between our plan and other councils’ plans to help prevent new pests arriving.

• Five new programmes added to direct how we deal with certain pests - exclusion, eradication, progressive containment, sustained control and site-led.

• Changes to nassella tussock rules.

• New rules for Chilean needle grass with management plans now needed for land occupiers.

• Early intervention for new pests and pests just establishing, including managing the spread, surveillance of high risk sites and working with the community to practice good biosecurity.

How will we do everything the Plan asks for?

• Being more efficient and effective, including carrying out more targeted inspections, ensuring more collaboration across the region, improving control methods/techniques and inspecting for multiple pests at once.

• Working with our communities better, including improved partnerships with Pest Management Liaison Committees, reducing the number of committees from 11 to 4, writing a new terms of reference, and providing more scope for community engagement in biodiversity and biosecurity.

• Sharing resources and responsibilities for managing pests with more land occupiers, community groups, industry and other government agencies to get results.

• Effective communications and engagement – providing clear information about pest management to those who need it, and working with individuals and groups to inspire good biosecurity practices in our communities.

We regularly monitor the pests named in the Plan to determine short-term and long-term trends across the region. This monitoring will help us to understand the effectiveness of pest control operations by land occupiers and us, and to measure our progress towards achieving the Plan’s objectives over time.

Who is responsible for making it happen?

All of us! Environment Canterbury is the “management agency” responsible for implementing the Plan, and is required to prepare an operational plan and review it annually. We also keep records of complaints and responses, and maintain our pest databases. That said, pest management in Canterbury is a shared responsibility, to be undertaken by many people including government agencies, private landowners, land occupiers, community and volunteer groups, and others. This joint approach will ensure we can prevent existing pests from proliferating while also increasing the focus on stopping new pests entering the region.
Who pays what?
Money collected from general and targeted rates across the region pays for most pest management in the Plan. In many circumstances, we can increase the funding available from rates by attracting funding from other agencies or groups. An example of this is the Wilding conifer programme, which for every rated dollar can attract up to five times as much in partnership funding.

Where landowners are unable or unwilling to undertake work required on their property to manage pests to the standard required by the rules, Environment Canterbury will engage a contractor to undertake the work on the land occupier’s behalf. Under Section 135 of the Biosecurity Act 1993, we will then recover all costs associated with this work from the land occupier.

MANAGING PESTS – WHAT, HOW & WHO

What pests are in the Plan?
Not every plant or animal that is troublesome or weedy in our region can be considered a pest. A plant or animal that is a nuisance for some people won’t be for others. Before developing the Plan, we worked with communities to get their input and make sure the right pests were included.

Here are the criteria we used to determine if a pest was included:

- The pest poses a significant threat to Canterbury’s economy (by impacting production), tikanga Māori, health, recreational spaces and activities, and/or indigenous biodiversity.

- The benefits to Canterbury of controlling the pest must outweigh the costs to do so.

- There is clear objective for managing the pest that is achievable over the lifetime of the plan (by 2038).

Other organisms not declared as pests
There are many “organisms of interest” listed in the Plan that do not have official pest status but are still capable of causing damage in our region. Some of these pose enough of a future risk to warrant being on our watchlist for surveillance or control opportunities. Land occupiers should consider managing these organisms as well as declared pests when protecting biodiversity through a Site-Led Programme.

Want to know more? See the full list in Appendix 2 of the Canterbury Regional Pest Management Plan at www.ecan.govt.nz/pests
What is the objective for managing each pest?

All pests listed in the Plan are categorised into one of five programmes. These programmes describe the objective in managing that pest in Canterbury. The five programmes are:

- Exclusion Programme: to keep pests already present in New Zealand out of our region.
- Eradication Programme: to reduce a pest to zero levels within the region over the lifetime of the Plan.
- Progressive Containment Programme: to contain or reduce the spread of a pest over time.
- Sustained Control Programme: to provide ongoing control of a pest to reduce its impact and prevent further spread.
- Site-led Programme: to exclude, eradicate, reduce or contain pests to protect natural biodiversity at specified sites.

What do I need to do?

Does Environment Canterbury take the lead or do I?

Under the Plan, land occupiers are mainly responsible for controlling pests on their own land. Environment Canterbury will check this is happening by inspecting properties to ensure the rules are met, and directing land occupiers to act if rules are not being met.

Environment Canterbury takes the lead in some cases, such as:

- When a pest is new to the region.
- When a pest is of limited numbers.
- Where control requires specialised expertise (e.g. biological control).
- Where coordinated control will benefit an area or the whole region.

Our biosecurity staff are always there to provide advice and education so land occupiers know their responsibilities and have the support they need to manage pests.

In the following pages, you can read further information about each of the programmes and what pests fall within them.

ARE THERE ANY EXEMPTIONS?

In some exceptional circumstances, Environment Canterbury may provide a land occupier with an exemption from meeting their pest control obligations under the Plan. There are set criteria that must be met for an exemption to be granted and it must be requested in writing.

Written requests will be considered against the criteria set out in the Biosecurity Act 1993.

To ask for a form, call Customer Services on 0800 324 636.
**EXCLUSION PROGRAMME**

The objective of this programme is to keep pests already present in New Zealand out of Canterbury. These pests would pose a significant threat to our region if they established here. Environment Canterbury is responsible for yearly monitoring to ensure these pests don’t become established. A surveillance programme will target high-risk sites where these pests would be most likely to appear in Canterbury in the first instance. Reports of these pests would also be investigated. If any of these pests are found, we would instigate an Incursion Response, which means a delimiting survey would be undertaken to establish the extent of the pest, and we would take control.

<table>
<thead>
<tr>
<th>Pest</th>
<th>Botanical Name</th>
<th>Environment</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian sedge</td>
<td>Carex longebrachiata</td>
<td>Pastoral habitats</td>
<td>$</td>
</tr>
<tr>
<td>Broomsedge</td>
<td>Andropogon virginicus</td>
<td>Disturbed or open areas</td>
<td>$</td>
</tr>
<tr>
<td>Hornwort</td>
<td>Ceratophyllum demersum</td>
<td>Aquatic - freshwater</td>
<td>$</td>
</tr>
<tr>
<td>Kangaroo grass</td>
<td>Themeda triandra</td>
<td>Pastoral habitats</td>
<td>$</td>
</tr>
<tr>
<td>Koi carp</td>
<td>Cyprinus carpio</td>
<td>Aquatic - freshwater</td>
<td>$</td>
</tr>
<tr>
<td>Noogoora bur</td>
<td>Xanthium strumarium</td>
<td>Pastoral habitats</td>
<td>$</td>
</tr>
<tr>
<td>Nutgrass (purple nutsedge)</td>
<td>Cyperus rotundus</td>
<td>Pastoral habitats</td>
<td>$</td>
</tr>
<tr>
<td>Oxylolium</td>
<td>Oxylobium lanceolatum</td>
<td>Dry, sandy coastal areas</td>
<td>$</td>
</tr>
<tr>
<td>Palm grass</td>
<td>Setaria palmifolia</td>
<td>Disturbed or open areas</td>
<td>$</td>
</tr>
<tr>
<td>Spiny broom</td>
<td>Calicotome spinose</td>
<td>Terrestrial</td>
<td>$</td>
</tr>
<tr>
<td>Woolly nightshade</td>
<td>Solanum mauritianum</td>
<td>Rough pastures, roadsides, wasteland</td>
<td>$</td>
</tr>
</tbody>
</table>

- **Economic wellbeing**
- **Environmental values**
- **Recreational values**
ERADICATION PROGRAMME

The objective of this programme is to eradicate certain pests from Canterbury by 2038.

Eradication of these pests is thought to be possible as there are currently very few occurrences in the region. Environment Canterbury will take responsibility for eliminating these pests annually and will work with landowners to ensure this happens. Environment Canterbury is best placed to control these pests – rather than requiring land occupiers to do it – because they are not common and are not easily identifiable. The cost of controlling and managing these pests are covered by rates. These pests are not allowed to be sold, distributed or propagated.

<table>
<thead>
<tr>
<th>Pest</th>
<th>Botanical Name</th>
<th>Environment</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egeria</td>
<td><em>Egeria densa</em></td>
<td>Aquatic</td>
<td><img src="leaf.png" alt="leaf" /> <img src="human.png" alt="human" /></td>
</tr>
<tr>
<td>Entire marshwort</td>
<td><em>Nymphoides geminata</em></td>
<td>Aquatic</td>
<td><img src="leaf.png" alt="leaf" /> <img src="human.png" alt="human" /></td>
</tr>
<tr>
<td>Knotweed ( Asiatic and Giant)</td>
<td><em>Fallopia japonica x sachalinensis</em>, <em>Fallopia sachalinensis</em></td>
<td>Shrublands and waterways</td>
<td><img src="leaf.png" alt="leaf" /> <img src="human.png" alt="human" /> <img src="leaf.png" alt="leaf" /> <img src="human.png" alt="human" /></td>
</tr>
<tr>
<td>Moth Plant</td>
<td><em>Araujia hortorum</em></td>
<td></td>
<td><img src="leaf.png" alt="leaf" /> <img src="human.png" alt="human" /> <img src="human.png" alt="human" /></td>
</tr>
<tr>
<td>Phragmites</td>
<td><em>Phragmites australis</em></td>
<td>Aquatic</td>
<td><img src="leaf.png" alt="leaf" /> <img src="human.png" alt="human" /> <img src="human.png" alt="human" /></td>
</tr>
<tr>
<td>Rook</td>
<td><em>Corvus frugilegus</em></td>
<td>Pastoral habitats</td>
<td><img src="dollar.png" alt="dollar" /> <img src="human.png" alt="human" /> <img src="human.png" alt="human" /></td>
</tr>
<tr>
<td>Yellow bristle grass</td>
<td><em>Setaria pumila</em></td>
<td>Pastoral habitats, roadsides and waste areas</td>
<td><img src="dollar.png" alt="dollar" /> <img src="human.png" alt="human" /> <img src="human.png" alt="human" /></td>
</tr>
<tr>
<td>Yellow water lily</td>
<td><em>Nuphar lutea</em></td>
<td>Aquatic</td>
<td><img src="leaf.png" alt="leaf" /> <img src="human.png" alt="human" /> <img src="human.png" alt="human" /></td>
</tr>
</tbody>
</table>

*Economic wellbeing   Environmental values   Recreational values*
The objective of this programme is to contain or reduce the spread of a pest over time.

These pests are already well established in Canterbury, but their infestation levels are still low enough that it is cost effective to reduce them throughout the region. Environment Canterbury is responsible for managing the reduction of these plants and will work in partnership with land occupiers to ensure this happens. Environment Canterbury is best placed to control these pests as they are not common (except for wilding conifers) and are not easily identifiable. The control and management of these pests will be paid for by rates.

<table>
<thead>
<tr>
<th>Pest</th>
<th>Botanical Name</th>
<th>Environment</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>African feather grass</td>
<td><em>Pennisetum macrourum</em></td>
<td>Wetlands, coastal areas, tussock landscapes</td>
<td></td>
</tr>
<tr>
<td>African love grass</td>
<td><em>Eragrostis curvula</em></td>
<td>Bare and disturbed sites</td>
<td></td>
</tr>
<tr>
<td>Baccharis</td>
<td><em>Baccharis halimifolia</em></td>
<td>Open dry hillsides, rocky crevices</td>
<td></td>
</tr>
<tr>
<td>Puna grass</td>
<td><em>Achnatherum caudatum</em></td>
<td>Pastoral landscapes</td>
<td></td>
</tr>
<tr>
<td>Wilding conifer: contorta, Corsican, Scots, mountain and dwarf mountain pines and larch</td>
<td><em>Pinus contorta, P. nigra, P. sylvestris, P. uncinata, P. mugo and Larix decidua.</em></td>
<td>High country catchments</td>
<td></td>
</tr>
</tbody>
</table>

Economic wellbeing  Environmental values  Recreational values
The National Wilding Conifer Control Programme aims to prevent the spread of these tree pests and to progressively remove them from much of the land already invaded. This is a huge investment, which is why Environment Canterbury has put rules in place to ensure this investment is protected.

Wilding conifers are any introduced conifer tree that has established by natural means. They are not trees within a forest plantation. Wilding conifers can grow faster and taller than many native plants, leading to localised extinction of native plant communities and a dramatic change in our natural landscapes.

What do I need to do?

Where public money has been spent to control infestations of wilding conifers, land occupiers must ensure this investment is maintained and take over control. Land occupiers are also required to clear wilding conifers from property boundaries where adjoining land has been (or is being) cleared of wilding conifers.

Environment Canterbury works with land occupiers and other agencies to determine where wilding conifer control should take place to achieve the best environmental and economic outcomes. Ministry for Primary Industries, the Department of Conservation and Land Information New Zealand are leading the work, with support from other central and local government agencies, industry, land occupiers and communities.

WILDING CONIFER SPECIES INCLUDE:

- Contorta Pinus contorta
- Corsican P. nigra
- Scots P. sylvestris
- Mountain P. uncinate
- Dwarf mountain P. mugo
- Larch Larix

If you are affected by wilding conifers, see pages 40 to 42 of the Canterbury Regional Pest Management Plan.
The objective of this programme is to provide ongoing control of a pest to reduce its impact and prevent further spread. These pests are well established in Canterbury and previous attempts to eradicate or reduce their numbers have been unsuccessful. The focus is now on managing spread of these pests to neighbouring properties and, in some cases, controlling the pest within properties. Land occupiers must control – and pay for any associated costs to control – Bennett’s wallabies, broom, Chilean needle grass, feral rabbits, gorse, nassella tussock, old man’s beard and wild Russell lupin. Any associated costs will be met by the individual. Environment Canterbury will control the remaining pests in partnership with land occupiers, with the majority of costs paid for by rates.

<table>
<thead>
<tr>
<th>Pest</th>
<th>Botanical Name</th>
<th>Environment</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bell heather</td>
<td>Erica cinerea</td>
<td>Pastoral landscapes</td>
<td>$</td>
</tr>
<tr>
<td>Bennett’s wallabies</td>
<td>Macropus rufogriseus rufogriseus</td>
<td></td>
<td>$</td>
</tr>
<tr>
<td>Boneseed</td>
<td>Chrysanthemoides monilfera</td>
<td>Coastal areas</td>
<td>$</td>
</tr>
<tr>
<td>Broom: common, Montpellier, white</td>
<td>Cytisus scoparius, Teline monspessulana, C.multiflorus</td>
<td>Most prevalent on lightly grazed or non grazed areas</td>
<td>$</td>
</tr>
<tr>
<td>Bur daisy</td>
<td>Calotis lappulacea</td>
<td></td>
<td>![leaf]</td>
</tr>
<tr>
<td>Chilean needle grass</td>
<td>Nassella neesiana</td>
<td>Dry hill country</td>
<td>$</td>
</tr>
<tr>
<td>Coltsfoot</td>
<td>Tussilago farfara</td>
<td>River catchments</td>
<td>![leaf]</td>
</tr>
<tr>
<td>Darwins barberry</td>
<td>Berberis darwinii</td>
<td>Disturbed and bare land</td>
<td>![leaf]</td>
</tr>
<tr>
<td>Feral rabbit</td>
<td>Oryctolagus cuniculus</td>
<td>Pastoral landscapes</td>
<td>$</td>
</tr>
<tr>
<td>Gorse</td>
<td>Ulex europaeus</td>
<td>Most prevalent on lightly grazed or non grazed areas</td>
<td>![leaf]</td>
</tr>
<tr>
<td>Nassella tussock</td>
<td>Nassella trichotoma</td>
<td>Dry hill country</td>
<td>![leaf]</td>
</tr>
<tr>
<td>Old man’s beard</td>
<td>Clematis vitalba</td>
<td></td>
<td>![leaf]</td>
</tr>
<tr>
<td>Purple loosestrife</td>
<td>Lythrum salicaria</td>
<td>Damp ground and shallow water</td>
<td>![leaf]</td>
</tr>
<tr>
<td>Saffron thistle</td>
<td>Carthamus lanatus</td>
<td>Pastoral landscapes</td>
<td>![leaf]</td>
</tr>
<tr>
<td>Wild Russell lupin</td>
<td>Lupinus polyphyllus</td>
<td>Braided river systems</td>
<td>![leaf]</td>
</tr>
</tbody>
</table>
These six pests threaten our environment. There has been an enormous amount of work by Environment Canterbury and land occupiers over previous years to control them. Most occur only in very small, isolated parts of the region as far as we know, but have the potential to have a huge impact if they spread further. By working with land occupiers, there is a great opportunity to stop the spread of these six pests. These pests are not allowed to be sold, distributed or propagated.
Bennett’s wallabies

PEST STATUS:
Sustained Control Programme

Bennett’s wallabies cause serious harm to our environment by preventing the regeneration of native bush and depleting forest understoreys. They also impact on farming by eating pasture and crops, resulting in a loss of food available for livestock. Three wallabies can eat as much as one sheep! It’s not possible to keep them as pets or to move them around the region without a permit.

What do I need to do?

Land occupiers within the designated containment area (see map) need to keep numbers of Bennett’s wallabies at or below Level 3 on the Guilford Scale. We inspect properties to make sure wallabies are being controlled, and when high numbers are found over large areas, we will coordinate control work among affected land occupiers. Outside the containment area, we will work with land occupiers to control wallabies or reduce/eliminate existing populations and prevent further spread and establishment.

Guilford Scale

This scale assesses wallaby population levels.

1. No faecal or track sign seen but area known to be within feral range of wallabies.
2. Infrequent faecal sign seen. Track sign absent. One or two pellet groups seen when traversing 100 m. Unlikely to see any wallabies.
3. Frequent faecal and track sign seen, but only in isolated pockets. Likely to see some wallabies.
4. Faecal and track sign very obvious and consistent. Tracks well used. High probability of seeing wallabies.
5. High densities of faecal and track sign distributed almost uniformly. Tracks well used. High probability of seeing wallabies.

Wallaby Containment Area

If you are affected by wallabies, see pages 44 to 46 of the Canterbury Regional Pest Management Plan.
Gorse and broom are widespread and scattered across Canterbury. Both can form dense stands that prevent stock from grazing. Seeds may survive in the soil for more than 50 years.

Gorse and broom threaten productive land in the more extensively grazed hill and high country, and are also more likely to enter our braided rivers in this environment. The remainder of Canterbury is more intensively grazed, making it much harder for these pests to establish and easier to control.

What do I need to do?

Rural land occupiers within the gorse and broom zone (for map, see page 99 of the Canterbury Regional Pest Management Plan), are required to control gorse and broom plants and patches on land that cover 50 square metres or less. This applies to all land within this area except land owned by the Crown. In addition, rural land occupiers throughout Canterbury (including the Crown) are required to protect neighbouring properties by keeping boundaries clear of gorse and broom (“Good Neighbour Rule”).

Environment Canterbury will inspect properties in the hill and high country zone to ensure gorse and broom is being contained. If work to remove gorse or broom is needed, depending on the amount of work required, a programme to complete this work over time may be considered. Environment Canterbury will enforce rules where action is not being taken to keep productive land clear of these pests.

We will investigate reports throughout Canterbury about gorse and broom on boundaries and will enforce rules where action is not being undertaken to protect production or natural biodiversity values on neighbouring properties. Reports other than from direct neighbours will not be inspected.

Urban properties will not generally be inspected. In urban situations where gorse and broom is growing on boundaries, Environment Canterbury may provide advice to both the person complaining and to the neighbouring land occupier. If the gorse or broom is not affecting production it is unlikely an inspection will take place.

If you are affected by gorse and broom, see pages 56 to 58 of the Canterbury Regional Pest Management Plan.
Chilean needle grass

PEST STATUS:
Sustained Control Programme

Our aim is to contain Chilean needle grass wherever it occurs. This is a pest that adversely affects both farming and our environment. Large infestations of Chilean needle grass can cause economic loss by reducing the amount of pasture available for livestock, which means the numbers of livestock has to be reduced and the sharp seeds can cause animal welfare issues. Containing Chilean needle grass at known sites is the most achievable objective, because it is difficult to identify the grass and we have a lack of tools available to control infestations.

What do I need to do?

Anyone with Chilean needle grass on their property needs to kill all plants within five metres of a neighbouring property boundary, and enter into an agreement with Environment Canterbury on how it will be managed.

The management agreement is a written plan, specific to a farm and agreed on by both parties, focusing on how best to prevent Chilean needle grass spreading from a property which has it. Any land occupiers who does not wish to enter into a Chilean Needle Grass Management Agreement will need to kill all Chilean needle grass plants on their property each year before it seeds.

Environment Canterbury will work with land occupiers whose properties have Chilean needle grass to make sure these obligations are met and search land prone to, but not known to have, Chilean needle grass throughout the region.

People are encouraged to report suspected Chilean needle grass plants they may have seen to Environment Canterbury straight away, before they become a major problem.

If you are affected by Chilean needle grass, see pages 50 to 52 of the Canterbury Regional Pest Management Plan.
Feral rabbits

PEST STATUS:
Sustained Control Programme

Feral rabbits can cause economic harm and environment damage when they are in high numbers, reducing available grazing for stock, destroying native plants, and creating less diverse plant populations. We aim to keep populations of feral rabbits at or below Level 3 of the Modified McLean Scale.

What do I need to do?

Land occupiers are responsible for keeping rabbit densities to low levels (at or below Level 3 of the Modified McLean Scale) on their land. Environment Canterbury will inspect land that is highly prone to rabbits to ensure land occupiers are meeting their obligations. This includes responding to reports of rabbits affecting neighbouring properties.

Modified McLean Scale

This scale assesses rabbit population levels.

1. No sign found. No rabbits seen.
2. Very infrequent sign present. Unlikely to see rabbits.
3. Pellet heaps spaced 10m or more apart on average. Odd rabbits seen; sign and some pellet heap showing up.
4. Pellet heaps spaced between 5m and 10m apart on average. Pockets of rabbits; sign and fresh burrows very noticeable.
5. Pellet heaps spaced 5m or less apart on average. Infestation spreading out from heavy pockets.
6. Sign very frequent with pellet heaps often less than 5m apart over the whole area. Rabbits may be seen over the whole area.
7. Sign very frequent with 2-3 pellet heaps often less than 5m apart over the whole area. Rabbits may be seen over the whole area.
8. Sign very frequent with 3 or more pellet heaps often less than 5m apart over the whole area. Rabbits likely be seen in large numbers over the whole area.

FERAL RABBITS ARE FOUND REGIONWIDE

If you are affected by feral rabbits, see pages 54 to 56 of the Canterbury Regional Pest Management Plan.
Our aim is to stop the population and occurrence of nassella tussock plants in the region increasing. Nassella tussock can affect production and environmental values when densities become high. Because nassella tussock is not able to be digested by most livestock, it can displace desirable pasture species, reducing pasture quality. It can also displace native species in tussock grassland. One mature nassella tussock plant can produce up to 100,000 seeds. Those seeds can be blown long distances in the wind.

What do I need to do?

Land occupiers are responsible for controlling nassella tussock and must undertake an annual programme to eliminate all plants from their land by specified dates to prevent seeding. The dates – 30 September or 31 October every year – are based on scientific knowledge of the plants’ behaviour (i.e. how many seeds are produced and when they seed). It enables just enough time for Environment Canterbury and land occupiers to check control work is good enough before the seed becomes viable.

Environment Canterbury will send land occupiers a letter each year to remind them of what needs to be done and by when. Environment Canterbury will inspect a selection of properties each year to make sure good control is happening. Where many live plants are found, land occupiers will be asked to carry out more control work.

If you are affected by nassella tussock, see pages 58 and 59 of the Canterbury Regional Pest Management Plan.
Old man’s beard

PEST STATUS:
Sustained Control Programme

Old man’s beard harms environmental, economic and amenity values. It can smother and kill desirable plants, prevent the establishment of native seedlings and damage river protection trees which are planted to protect farm land. We are aiming to stop an increase in old man’s beard plant numbers or densities.

What do I need to do?
Land occupiers are responsible for controlling old man’s beard on their land. Environment Canterbury will work in partnership with land occupiers. We will inspect land and ask land occupiers to control old man’s beard where it has the potential to impact on areas of high biodiversity values, either on their land or nearby. When land occupiers control isolated old man’s beard plants and patches, and where plants grow on boundaries, we may assist in control for larger infestations. Urban properties will not generally be inspected.

If you are affected by old man’s beard, see pages 59 and 60 of the Canterbury Regional Pest Management Plan.
Wild Russell lupin

PEST STATUS:
Sustained Control Programme

Our aim is to prevent wild Russell lupin from spreading to waterways in order to protect the environmental values of these areas.

While Russell lupin are a tourist favourite, they’re a major threat to our braided river ecosystems. Russell lupin rapidly invade braided rivers, forming dense stands that provide cover for predators to pray on river nesting birds and interfere with the flow of water, contributing to flooding and erosion.

Land occupiers on rural-zoned land in Canterbury can’t plant wild Russell lupin within the following distances of a water body:

- **Within 200m of a braided river.**
- **Within 50m of a non-braided river.**
- **Within 10m of an artificial watercourse.**

What do I need to do?

Land occupiers must also not plant Russell lupin within 10m of their property boundary. Land occupiers are responsible for eliminating any wild Russell lupin growing within the above specified distances to a waterway or a neighbouring property. Environment Canterbury will inspect areas at high risk to invasion by Russell lupin and work with land occupiers in the first instance to ensure these areas are protected.
Our aim is to keep populations of saffron thistle contained and to prevent their spread and establishment to protect production values. Saffron thistle isn’t a well-known pest in Canterbury, yet has the potential to become a serious problem in the future. With only a small number of sites known to exist, which are currently well under control, it would be unfortunate to let this pest plant become widespread.

Saffron thistle can form dense stands, which prevent stock grazing and movement. Much of Canterbury is susceptible to invasion by saffron thistle, which could be a real problem especially in our drier areas on the plains and hill country. Saffron thistle is quite distinctive with its yellow flower in late spring and early summer.

What do I need to do?
Environment Canterbury is working with land occupiers who have saffron thistle to control it, reduce populations and prevent spread. If you think you may have seen saffron thistle please contact us 0800 324 636 so we can help.

If you are affected by saffron thistle, see page 62 of the Canterbury Regional Pest Management Plan.
The objective of this programme is to exclude, eradicate, reduce or contain pests to protect natural biodiversity at specified sites. Sites can range in size from a small area within a property to larger areas covering multiple properties. Individuals or community groups can work with Environment Canterbury to identify sites of value that may benefit from being a Site-Led Programme.

<table>
<thead>
<tr>
<th>Pest</th>
<th>Botanical Name</th>
<th>Environment</th>
<th>Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banana passionfruit</td>
<td><em>Passiflora tripartita var mollissima</em>, <em>P. tripartita var azuayensis</em>, <em>P. tarminiana</em>, <em>P. pinnatistipula</em>, <em>Passiflora x rosea</em>, <em>P. caerulea</em></td>
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<td></td>
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<tr>
<td>Broom – common, montpellier, white</td>
<td><em>Cytisus scoparius</em>, <em>Teline monspessulana</em>, <em>Cytisus multiflorus</em></td>
<td>Most prevalent on lightly grazed or non grazed areas</td>
<td></td>
</tr>
<tr>
<td>Cathedral bells</td>
<td><em>Cobaea scandens</em></td>
<td>Forests, forest margins and shrublands</td>
<td></td>
</tr>
<tr>
<td>Gorse</td>
<td><em>Ulex europaeus</em></td>
<td>Most prevalent on lightly grazed or non grazed areas</td>
<td></td>
</tr>
<tr>
<td>Feral goats</td>
<td><em>Capra aegagrus hircus</em></td>
<td>Banks Peninsula</td>
<td></td>
</tr>
<tr>
<td>Old man’s beard</td>
<td><em>Clematis vitalba</em></td>
<td></td>
<td></td>
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<tr>
<td>Possum</td>
<td><em>Trichosurus vulpecula</em></td>
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<tr>
<td>Spartina</td>
<td><em>Spartina alterniflora</em>, <em>S. anglica</em>, <em>S. gracilis</em>, <em>S. maritime</em>, <em>S. × townsendii</em></td>
<td>Estuarine environments</td>
<td></td>
</tr>
<tr>
<td>White edged nightshade</td>
<td><em>Solanum marginatum</em></td>
<td>Banks Peninsula</td>
<td></td>
</tr>
<tr>
<td>Wild thyme</td>
<td><em>Thymus vulgaris</em></td>
<td>Shallow soils bordering rivers</td>
<td></td>
</tr>
</tbody>
</table>

*Economic wellbeing*  *Environmental values*  *Recreational values*
More information
www.ecan.govt.nz/pests