

Environment Canterbury: **Biosecurity Programme Update**

REGIONAL UPDATE – MAY 2022

BIOSECURITY ACT REVIEW – UPDATE

The Ministry for Primary Industries (MPI) has advised the Biosecurity Act review discussion document has been finalised, MPI will be seeking public feedback. This is now likely to occur in late 2022.

FERAL ANIMAL MANGAGEMENT

Department of Conservation is developing an implementation strategy for feral ungulates in collaboration with other stakeholders. Once this is completed Environment Canterbury will organise community meetings to discuss local feral ungulate issues and what approaches the community can use to resolve these. The focus will be on high value native biodiversity sites.

NASSELLA TUSSOCK – NEW INFESTATIONS

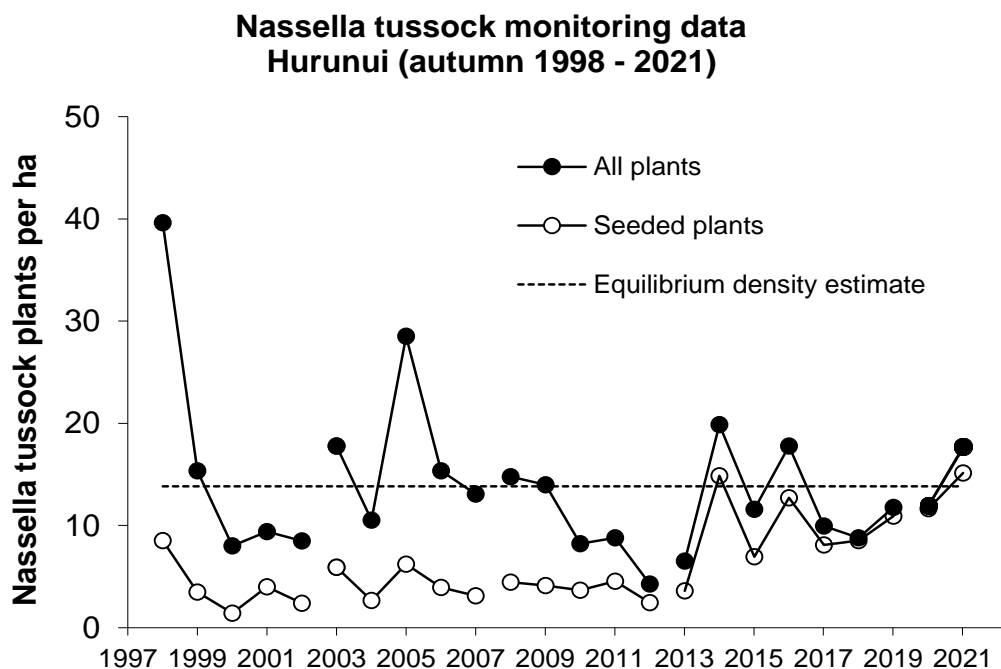
Environment Canterbury Biosecurity staff are working closely with the owner of an 800-hectare property near Duntroon to plan control of Nassella tussock. Staff visited the site recently with AgResearch Scientists Graeme Bourdot and Shona Lamoureaux, and Tony Benny from Upside Down Productions Limited, see photo below.



Photo: Walking through a property heavily infested with Nassella tussock

NASSELLA TUSSOCK POPULATION TREND MONITORING

Nassella tussock population density monitoring results for 2021 in the Hurunui District (below) indicate a potential increase in overall numbers is occurring. This aligns with recent comments from some land occupiers in the district. The next population monitoring programme for Nassella tussock will be implemented in Autumn 2023. There are >1450 properties with a history of Nassella tussock in Canterbury, of which 890 properties are known to occur in the Hurunui District.



The average number of plants per hectare in the Hurunui District in 2021 (in Autumn after control and inspections) on affected properties is estimated at 17 plants/hectare. The remainder of Canterbury is estimated at 3.7 plants/hectare. The average density (equilibrium) since 1997 for Nassella tussock is approximately 13 – 14 plants/hectare.

Most properties have very low numbers/densities of Nassella tussock. Approximately 170 properties are thought to have consistently more than 1000 plants. These properties are estimated to have between 30 – 70 plants/ha on average (after control efforts) which equates to 3.4 million plants.

An estimated average 86.5% of plants missed (on 170 properties) during control seeded, releasing an estimated 19 billion seeds.

Nassella tussock seed is spread by machinery, vehicles, crops, stock, people, and wind.

Planning the 2022 – 2023 Nassella tussock programme across Canterbury is also underway. This programme consists of several components' education, surveillance, and inspections to ensure satisfactory control has been undertaken by land occupiers.

SPACE INVADERS - FEEDBACK

Environment Canterbury has provided feedback to Parliament's Environment Committee and the Primary Production Committee on the Report produced by the Parliamentary Commissioner for the Environment, Te Kaitiaki Taiao a Te Whare Pāremata: [Space invaders: A review of how New Zealand manages weeds that threaten native ecosystems](#).

Environment Canterbury support the main theme of the recommendations, that the system needs to be strengthened to better manage weeds that threaten native ecosystems. [Our submission on the report](#)

FOCUS ON FUTURE – INVASIVE ORGANISMS (by Morgan Shields)

An extensive list of 1033 invasive species that are present in New Zealand has been collated. These species have been suggested as causing or potentially causing negative impacts in Canterbury now or in the future. The species recorded can be further categorised as follows; plants (873), insects (50), mammals (31), birds (15), fish (11) and other organisms (68) across terrestrial, aquatic, and marine ecosystems.

The list includes declared pests as well as species that are currently not known to exist in Canterbury. Additional species will likely be added in the future.

A ranking system is being developed based on existing invasive species models to determine what species will be considered for further investigation. Following this process, a substantially shorter list of species will undergo further investigation with expert advice from an external Technical Advisory Group. Some of these species will be prioritised in the future for council to consider adding to the Canterbury Regional Pest Management Plan (2018-2038).

The Biosecurity team at Environment Canterbury has begun discussions with MPI, most notably Michael Ormsby, Manager - Plant Risk Analysis, to provide Environment Canterbury with risk assessment tools and processes that can be adapted for the Canterbury region. This looks promising and while it will take time to implement, risk assessment capabilities will be substantially improved.

Plant Sales.

Environment Canterbury Biosecurity is about to undertake inspections of wholesale and retail nurseries across Canterbury for pest plants identified in the [National Plant Pest Accord](#) and [Canterbury Regional Pest Management Plan \(2018–2038\)](#). A plant educator has been employed to aid Environment Canterbury in this endeavour.

The plant sales surveillance programme will expand in the new financial year to include inspections of community markets, fetes, roadside stalls and online plant sales with guidance from MPI.

NEW ZEALAND BIOSECURITY INSTITUTE - NATIONAL EDUCATION AND TRAINING SEMINAR

The annual National Education and Training Seminar (NETS) organised by the New Zealand Biosecurity Institute (NZBI), is being hosted at the Christchurch Town Hall, from 3 - 5 August 2022. Each year NETS is attended by people from all facets of the field of Biosecurity and features workshops and presentations on many different aspects of invasive species management.

This three-day seminar provides a multi-sectoral and multi-agency forum for discussion and debate on how we can collectively minimise the risk of biosecurity threats to New Zealand. NETS2022 is expected to attract up to 250 delegates from across New Zealand.

Speakers have a range of backgrounds and areas of expertise, from international and national experts to people working at the coalface. The theme for NETS2022 is "Changing Landscapes".

NETS has been delayed for two years due to the impacts of Covid 19. Check out the [promo video](#) (made in 2020) for the conference:

Registration details will be available on the NZBI [website](#) soon.

EDUCATIONAL ACTIVITIES – IN BRIEF

A new online tool is being created to allow the public to better engage with Environment Canterbury regarding organism observations. This will capture trends in public reporting enabling map education resources to be more targeted towards community needs.

The pest awareness advertising plan for autumn is being rolled out with the objective of increasing stakeholder engagement with our awareness programme, with a vision to increase the reach of our notices to newly identified groups.

The project aimed at getting roadside signs installed at various locations across Canterbury is progressing. These signs have been designed and are awaiting final proofing.

Adverts raising awareness about specific pests were shared with the community with particular focus on the rural community - Yellow Bristle Grass was promoted in the Canterbury Farming Magazine. Goats were promoted in the Akaroa Mail.

A request was put out to the Biosecurity Advisory Groups, requesting names and contacts for community groups (conservation, gardening, etc) operating in their areas to whom we could direct pest awareness material. This was well received with a number of groups being identified and shared with us.

GORSE AND BROOM – CHANGE PROPOSAL

To increase the effectiveness of the compliance inspection programme for gorse and broom, a change from the current two zone approach (Zone 1: Hill and High Country with internal and boundary rules, and Zone 2: Canterbury Plains) to a three-zone approach is being proposed.

Under the recommended approach, the current hill and high-country zone will be split into two. The first zoning will include large scale areas consisting of multiple productive properties which are clear or almost clear of gorse and broom. Inspections will be undertaken to ensure these remain free.

The second zoning would include areas with omnipresent gorse and broom at various stages of infestation and containing large infestations of gorse and broom. Inspections will be undertaken to ensure boundaries are clear and advice provided for effective management of internal infestations.

NATIONAL WILDING CONIFER CONTROL PROGRAMME

- Sixteen active management units within Canterbury, fifteen of which are primarily Crown-funded including one community project on Banks Peninsula.
- Crown funding for the current financial year is approximately \$13.2 million; other significant contributors include Environment Canterbury, New Zealand Defence Force, Land Information New Zealand and landowners.
- Approximately \$11.2 million has been invoiced for work to date across Canterbury. Two management units are complete for this financial year and all others are tracking well for completion by mid-late June.
- Three volunteer days were completed this year with great engagement and feedback received. We are also actively working alongside three Trusts involved in wilding conifer control.
- Approximately 185 individuals have been employed for the programme this financial year.

NATIONAL WALLABY ERADICATION PROGRAMME

- On foot search teams are working in the Ben Ohau range, checking the heavily wilding tree-covered areas and mapping any wallaby sign. Once completed we will meet with landowners to plan a bait operation to target any wallaby groups or individuals found.
- Ground teams are engaged in search and destroy work within the Mackenzie, Two Thumb, Te Manahuna Aoraki, Kirkliston and South Waitaki management units.
- The Tekapo, Pukaki, lower Ohau River systems are ground shot four times per year; next round is scheduled for mid-June.
- Day time thermal helicopter search and destroy operations completed work over three weeks in several management units.

- Wallaby ear tissue samples collected over the entire wallaby range this month; Eco Gene will be analysing these samples (all regional councils involved in the National Wallaby Eradication Programme are taking part) to try to determine if unique DNA signatures exist from geographic areas. This may aid in determining passive wallaby pathways and/or areas of human relocated releases. Environment Canterbury will provide around 80 samples in a geographic spread within the feral range.
- All wallaby faecal transects completed and data sent to Manaaki Whenua for biometrician analysis and reporting, completion due May 2022.

Report prepared by:

Laurence Smith

Principal Advisor - Biosecurity

Scroll down to see local area update

Christchurch / Banks Peninsula Area Update May 2022

Nassella Tussock (Sustained Control)

Environment Canterbury Biosecurity Officers have taken the opportunity to complete ground search of several Banks Peninsula properties that may not necessarily have been searched in the past but where the potential for Nassella Tussock exists.

Surveillance is a critical function of Biosecurity and the opportunity to further educate land occupiers of potential weed infestations in their location is critical.

Egeria (Eradication)

A submerged aquatic pest managed in Environment Canterbury's Eradication programme. Occurs in the Avon River at Kerr's Reach.

NIWA recently completed a dive survey through Kerr's Reach and further upstream. They found extensive Egeria cover in places (in deeper areas where weed harvester can't reach). Egeria was also detected in the oxbow by the rowing club and the channel near the pump station (considered high-risk). The furthest upstream point was Snell Place. A new site has been found in Horseshoe Lake, but this may be small enough to enable hand pulling of plants at this stage.

A meeting was held with CCC to co-ordinate the approach to controlling this pest, as Kerr's Reach is a public place and used by several sports clubs. Control of the larger infestation requires a specialist contractor. The contractor engaged has recommended 2 applications of the aquatic herbicide diquat, to be applied from mid-June and early October. Diquat herbicide is an Approved Substance for use in freshwater environments under the Hazardous Substances and New Organisms Act 1996.

Also worth noting, is that a member of the public was recently attempting to sell Egeria plants on Facebook Marketplace. Luckily a Biosecurity Officer noticed and raised the alarm. This scenario has been dealt with but highlights the importance of education and vigilance.

Old Man's Beard (Site Led Programme)

Land occupiers who have received funding for the control of Old man's beard on their property since 2018/19 as part of a Site-led Programme, have been reminded to ensure they undertake spraying of new/young growth. It is important to revisit areas where control has been undertaken to keep vines from re-establishing and protect prior investment.

This season, considerable resource has been invested in controlling Old man's beard in the Kaituna Valley, around Western Valley Road, and the Governors Bay area in the form of contractors and officer time to control Old Man's Beard and Educate Land Occupiers.

Biosecurity Officers have completed further work in the Old Man's Beard space using compliance inspections (Old Man's Beard) principally to educate land occupiers as to their responsibilities to control Old Man's Beard, and to help with identification and control methods. This approach proved effective in the Purau township resulting in a very dense infestation being controlled, as well as providing support to bolster the work of the Banks Peninsula Conservation Trust around Akaroa.

Feral Rabbit (Sustained Control Programme)

The contractor responsible for undertaking Feral Rabbit control and inspections on Banks Peninsula has continued with monitoring and control work. In February there were regular periods of rain which caused a lot of pasture growth. There is evidence that the rabbit virus has started to work again with old sign been observed but no rabbits evident. The February report indicates the following:

| Property No. | Date | Hours | Rabbits or Hares | Method: MMS (Modified McLean Scale) | Area (ha) |
|--------------------------------|--------|-------|-----------------------|---|--------------|
| Properties on Wainui Main Road | Feb 22 | 8 | | Rabbit assessment Level 2 MMS | 50 |
| Magnet Bay Road | Feb 22 | 5 | | Rabbit assessment Level 2 MMS | 46 |
| Bossu Road | Feb 22 | 8 | 20 hares 2 possums | Shoot hares on tree block | 30 |
| Takamatua | Feb 22 | 1.5 | | Baiting rabbits with pindone pellets | 8 |
| Cooptown | Feb 22 | 4 | | Baiting rabbits with pindone pellets (2xfeeds) | 3 |
| Kaituna Valley | Feb 22 | 3 | | Discussions with land owners re future work | |
| Kaitorete Spit | Feb 22 | 8 | | Rabbit assessment Kaitorete Spit Level MMS: Range from 1-2 to 2-3. Fumigation of rabbit warrens is to be carried out | 495 |

Feral Goats (Site Led Programme)



Environment Canterbury's Biosecurity team support the Banks Peninsula Goat Working Group led by the Banks Peninsula Conservation Trust.

The programme is currently focussed in the Peraki Catchment. The first part of the operation (muster) has been completed and was very successful. The second stage is underway using professional hunters to eliminate remaining feral goats

The Banks Peninsula Goat Working Group consists of representatives from the Banks Peninsula Conservation Trust, the Department of Conservation, and Christchurch City Council, with an aim to address

feral goats on the Peninsula.

Environment Canterbury have a role in bringing about the desired levels of environmental protection to the sites listed in the Canterbury Regional Pest Management Plan. This includes working with land occupiers in the first instance to ensure they understand their obligations with regard to appropriately fencing domestic goat herds.

White Edged Nightshade

Contractors were engaged to search for White Edged Nightshade at known and historic locations around the Little Akaloa area.

ECan Biosecurity Officers door knocked around the Little Akaloa community, principally to educate land occupiers and ask for people to report potential sightings. This approach was received positively by the community.

White-edged nightshade is a quick growing perennial shrub that can grow up to 5 metres tall. The large woody stems and green oak-shaped leaves are covered in nasty sharp spines. Its leaves have white veins on the upper surface and dense chalky-white hairs on the underside. In summer white or pale mauve flowers bloom in clusters at the end of branches. Green-yellow tomato-shaped berries grow on the ends of prickly stalks.

It is confined to five sites on Banks Peninsula scattered across 259 hectares. The shrub is well adapted to dry areas. Once established, it forms dense thickets that are impenetrable to stock. It also prevents the establishment of native understory on margins of native bush. White edged nightshade adversely affects economic well-being and environmental values.



Road Reserves

Please see below a table from the Canterbury Regional Pest Management Plan, simply reminding land occupiers that on Banks Peninsula, it is the adjoining Land Occupier that is responsible for controlling Plant Pests.

Table 1: Responsibility for plant pests on road reserves

| Territorial authority area | Adjoining land occupier responsibility | Road controlling authority responsibility |
|------------------------------|--|---|
| Hurunui District Council | No responsibility | Full responsibility |
| Christchurch City Council | No responsibility | Full responsibility |
| - City wards | Full responsibility | No responsibility |
| - Banks Peninsula ward | | |
| Waitaki District Council | No responsibility | Full responsibility |
| Timaru District Council | No responsibility | Full responsibility |
| Waimakariri District Council | Full responsibility | No responsibility |
| Kaikoura District Council | Full responsibility | No responsibility |
| Mackenzie District Council | Full responsibility | No responsibility |
| Selwyn District Council | Full responsibility | No responsibility |
| Waimate District Council | Full responsibility | No responsibility |
| Ashburton District Council | Full responsibility | No responsibility |
| State Highways | No responsibility | Full responsibility |

Note: The above table refers to road reserves containing formed roads maintained by the road controlling authorities. Land in road reserves containing unformed roads is the responsibility of the adjoining land occupier.

Report prepared by:

Bruce Marshall

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