



## Meeting of the Environment and Services Committee

# LATE ITEMS

**Date:** Wednesday 21 February 2018  
**Time:** 9.00am  
**Venue:** Council Chamber  
Hawke's Bay Regional Council  
159 Dalton Street  
NAPIER

## Agenda

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ITEM	SUBJECT	PAGE
<b>Information or Performance Monitoring</b>		
12.	Chilean Needle Grass Incursion and Control	3

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**HAWKE'S BAY REGIONAL COUNCIL  
ENVIRONMENT AND SERVICES COMMITTEE**

**Wednesday 21 February 2018**

**Subject: CHILLEAN NEEDLE GRASS INCURSION AND CONTROL**

**Item 12**

**Reason for Report**

1. To provide a 'briefing paper' prepared by the National Chilean Needle Grass steering committee to support their verbal presentation - item 12.

**Recommendation**

This report will be considered as item 12.

**Attachment/s**

- [!\[\]\(2a133ebb0337313d16cc068f19494aa2\_img.jpg\) 1](#) National Chilean Needle Grass Steering Committee Briefing Paper



## Briefing document for HBRC Environment &amp; Services Committee

Chilean Needle Grass National Steering Group  
February 2018

**Warwick Lissaman, Chairman National CNG Steering group**

**Contact** 027 457 5041

This is a presentation prepared by the Chilean Needle Grass (CNG) National Steering Group that is composed of farmers, biosecurity officers, councillors and Beef and Lamb NZ. In this presentation we are asking that the HBRC provides additional support to those battling CNG and that they combine with Marlborough district council and Environment Canterbury to foster a national approach to CNG. Farmers need to be supported to reduce CNG infestation and new tools need to be developed to assist landowners to reduce levels of CNG and for farmers to farm their way out of CNG.

CNG is an invasive grass species, originating in South America, . CNG first was found in the Marlborough region in the 1920's and Hawkes Bay in 1950's. It was found in Australia in 1932 and has spread to most parts of Southern and Eastern parts of Australia. It is considered to be Australia's and New Zealand's worst invasive weed. In New Zealand by 2016, CNG had spread to 3,648 ha across New Zealand; Marlborough (2,778 ha, 200 properties), Hawke's Bay (600 ha, 158 properties) and North Canterbury (300 ha and 20 properties).

Chilean needle grass is a serious environmental pest plant in all areas with warm summers, frequent droughts, moderate winters and low annual rainfall (650-900mm). It particularly invades drier slopes. CNG has the potential to spread to 15 million ha nationwide, mainly on the East Coast of both islands based on the plants ecological tolerance, but potentially wider as an infestation has been detected and controlled in Auckland. In the absence of active management infestations may spread outwards at a rate of 120 to 140 m a year. (Bourdot et al. 2010). CNG is spread by seed carried on stock, machinery, sown seed and in supplements.

In comparison with other species of grass in New Zealand, CNG or *Nassella Neesiana*, has a very versatile reproductive system, seeding as other grasses aerially, but also both at mid stem and at the base of the plant over a much extended period. In addition it has cross- and self-fertilisation capabilities, a very high rate of seed production which results in very large seed reserves in soil. CNG pastures are unpalatable during the seeding season from October to March and due to this loss of dry matter production and a substantial drop in the quality of the feed, the production of the paddock can be reduced to 50%. Analysis of the true cost of CNG to a farm system will commence shortly.

CNG is a vigorous competitor with the potential to displace many species that make up indigenous grassland and tussock ecosystems covering large areas of land at risk. Paddocks can become a thigh high monoculture of CNG. CNG is currently infesting and spreading to arable land, hill country, vineyards, life style properties, road verges and service areas of properties. And frighteningly it has even been found in recreational land and regional parks.

CNG is difficult to identify when not seeding and this coupled with a lack of awareness of landowners can lead to infestations being sizeable before they are identified.

CNG is animal welfare threat like no other grass species in NZ. The CNG seed is like a barbed dart and can borrow through the skin, mouth and eyes, of all grazing animals causing a significant animal welfare issue. Affected stock can only be sent direct to slaughter. Sheep cannot be grazed on seeding CNG pastures due to these animal welfare issues. Infected farms are advised not to move store sheep from their properties to others. So affected sheep properties have very few options for managing stock in times of drought and or other natural disasters.

Farmers as individuals are always evolving their farm systems to suit their life styles or to capture economic opportunities and this normally results a economically resilient farming sector with a wide range of farm systems in a particular catchment.

These opportunities are taken away from CNG infected farms, who often need to change their farm system to a more cattle or deer dominant system. If farmers retain their sheep they are required to finish all their lambs which, in the dry environments where CNG proliferates, adversely affects the responsiveness of the farm system to fluctuations in climatic conditions, stocking rates and ewe lambing percentages. So in essence a biosecurity requirements, rather than personal goals or economic factors are driving their farm systems. Landuse changes due to the removal of sheep and replacement with deer and cattle also increases erosion risk. Soils can become damaged, due to pugging, compaction, pacing and wallowing. There is also a destruction of vegetation including exotic and native stands. On a whole catchment basis this will increase sediment flows from land, into rivers and onwards out in the estuary systems.

Other impacts of CNG on landowners include the social stresses that farmers feel when their CNG is found on their farm. Farmers can feel powerless and overwhelmed. Property values also drop and farmers are required under pest management rules to control CNG which has significant costs both economically but also in labour requirements. Councils have been supporting some farmers with these costs. And of course there are also substantial ongoing compliance costs for councils.

The historical methods, such as spot spraying and spraying boundaries are labour intensive and expensive. The control in the past has limited success, and it is far from eradication and is not even achieving containment. CNG is still spreading. A substantial study commenced in 2002 in the Hawkes Bay on CNG and later programmes were launched in Marlborough and Canterbury. Part of the national approach would ensure everyone shares their collective knowledge and we progress forward together. Information and awareness programmes have added to the tools to fight CNG. Substantial awareness programmes have been launched within MDC and ECan to inform farmers without CNG of the risks posed by the pest weed and to help them with early identification and their own biosecurity measures needed to ensure it doesn't enter their properties.

In 2011 the herbicide Taskforce was registered for use in New Zealand for NT and CNG. Taskforce, washed into the soil after at least 5mm of rain, is taken up by the roots to kill the plant but also has a residual effect against germinating seeds for between 1-3 years. This

result helps control the CNG as the seed bank germinates. This has been an exciting break through for affected NZ sheep and beef farmers. AgResearch has established that CNG, and many grasses were most susceptible to Taskforce while plantain, chicory, lucerne, cocksfoot and some clovers were the most resilient. In cultivatable land, combined herbicides including Taskforce, followed by drilling with cocksfoot, lucerne, clovers, and plantain have resulted in productive pastures, a substantial reduction in CNG though at a significant cost. Some infestations of CNG are in vineyards and on steep un-cultivable land. Taskforce can't be used in vineyards. On steep land Taskforce use requires over sowing of the resilient species to establish pasture post treatment and management strategies to ensure CNG is out competed. This is a promising solution but is still being trialled. Other tools in the arsenal against CNG include the importation of a bio control agent in the form of a rust from South America. Sniffer dogs have also been successfully trained to identify CNG both in its vegetative or seeding state.

Every regional council has its own list of pest plants to look for, manage, control or eradicate. These are identified subject to their own individual analyses of the risks and return. Sadly this approach doesn't acknowledge the problem beyond their patch, and relies heavily on what each can do with their own limited resources. The CNG National Steering group calls for the HBRC to align its pest management strategy and policies with those of MDC and ECan, and then together implore the other regions to apply the same standards.

Stopping the spread requires a mind shift for those working and visiting farms and recreational areas irrespective if the area has, or has not, got CNG. The use of good biosecurity measures by landowners should result in the prevention of the spread of CNG from their property, or alternatively prevent it coming on to their property. The CNG National Steering group says we all need to change our ways, we all have a responsibility wider than just our place. Nationally we need to stop the spread of CNG and start reducing the existing areas of contamination. The alternative is too frightening. This will require providing additional resources to the fight and using shared resources as efficiently as possible.

In both Marlborough and Canterbury the farming community have established groups that work alongside the council to build awareness, improving identification and assisted in the liaison with the local communities. The councils have provided resources to assist these groups. These group provides farmers with the hope of eradication, though this will probably take 30 years of dedicated work. These groups have also been successful in acquiring their own funding for programmes of work.

One day we want farmers to be able to achieve a biosecurity green tick for their work in eradication of CNG, we want contractors and agents to similarly see that biosecurity is a paramount part of their best practise and their business. These steps are happening in Marlborough and Canterbury. The spinoff is that the same strategies would help prevent incursions of other biosecurity risks. Are these steps happening in Hawkes Bay and is it being adequately resourced? Are they happening over the whole of New Zealand? The key to this is having a national collaborative partnership between councils, landowners, regional biosecurity teams and wider public across the whole of New Zealand.

Attachment 1

What questions do you have? Where should we go from here? What actions can we put in place?



Flowering CNG

CNG seed in sheep

CNG seed in skin of sheep

Item 12



Solid CNG infested paddocks in Blind River Marlborough



Taskforce applied on the left and sown with plantain in Blind river, untreated on the right.



