



Protecting the farmer's patch

1. Introduction



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- This workshop is being delivered by Beef+Lamb NZ and NZ Landcare Trust and the Earthquake biosecurity project led by the Farmer led Chilean Needle Grass Action group.
- The weed examples come from Marlborough and North Canterbury. However the examples are applicable to weeds spread by animals/machinery and airborne spread weeds and hence applicable to all weeds.
- For anyone wanting more information on Chilean Needle Grass or Nassella tussock please visit the EQ biosecurity webpage. Look for the new CNG identification poster
- <https://www.landcare.org.nz/current-project-item/managing-biosecurity-risks-on-earthquake-affected-properties>
- For further support contact:
- Annette Litherland, NZ Landcare Trust 027 724 4445 annette.litherland@landcare.org.nz

- The aims of this workshop are to:
- Learn more about biosecurity
- Help you develop a biosecurity plan for your farm
- Help “Protect our patch”
- Implement “Clean on and Clean off”



Workshop structure



- This workshop is designed to be in approximately half hour bites
- You can decide how many you do in a session
- On some your bites you are working on your own biosecurity plan
- There are a number of resources provided in this workshop including resources from industry groups, biosecurity plan templates, examples of real biosecurity plans, induction conversations, information on biosecurity risks.
- There are also links to videos
- The workshop is designed to be delivered online either via email or via a website
- It is very possible for you to complete your **own** biosecurity plan. Once you have completed it, we recommend you share it with your vet for comments.

Why is biosecurity important to farm?



Once pests or diseases enter a farm they may:

- Reduce farm production
- Be expensive to control
- Result in legislated requirements for control
- Restrict stock movement or sales

- A farm with good biosecurity practises may get premiums in the future as they do in Australia.

Why is biosecurity important to the industry?

Animal diseases can be catastrophic



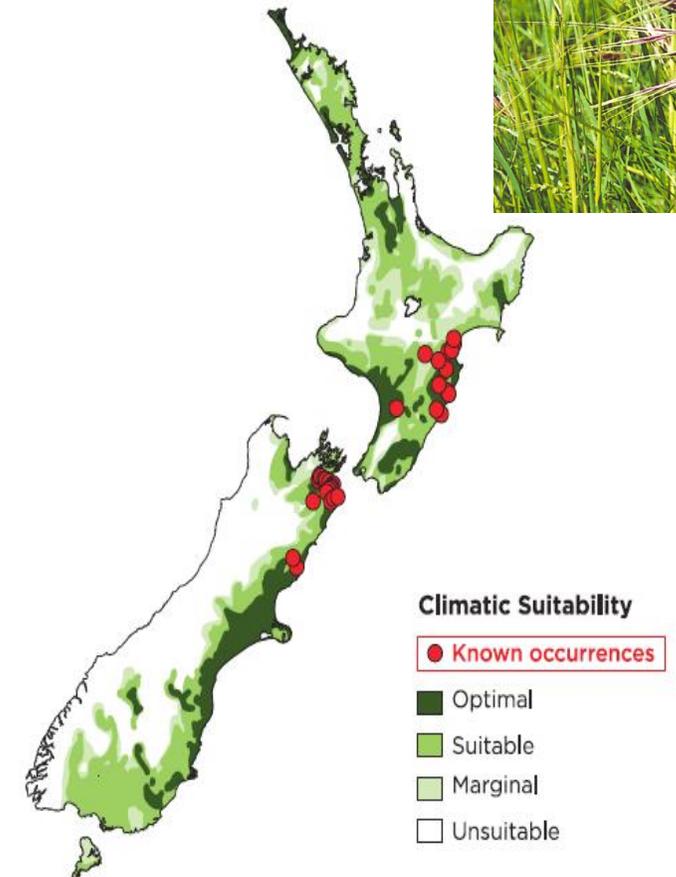
- If we had a foot and mouth disease outbreak on Sep 2020, our real GDP would drop by 8% and we would have a loss of \$13.8 billion from the economy by June 21 of the following year.
- Red meat exports would cease for at least 10 months
- Dairy production would immediately cease for the remainder of the season.
- M Bovis has cost \$203 million to date and much heart ache and stress in many farmers.

Why is biosecurity important

Example of a plant pest



- Chilean Needle grass infests around 3000 ha of dry hill country in Marlborough, Canterbury and Hawkes Bay
- It could infest up to 15 million ha of dry hill country
- All sheep must be sold to works
- Cattle must be sold to works for parts of year
- Stock don't like to eat it
- It reduces productivity by 50%
- It out competes other pasture species
- It results in reduced stocking rates
- It requires compulsory changes farm system
- It has compulsory costs of control

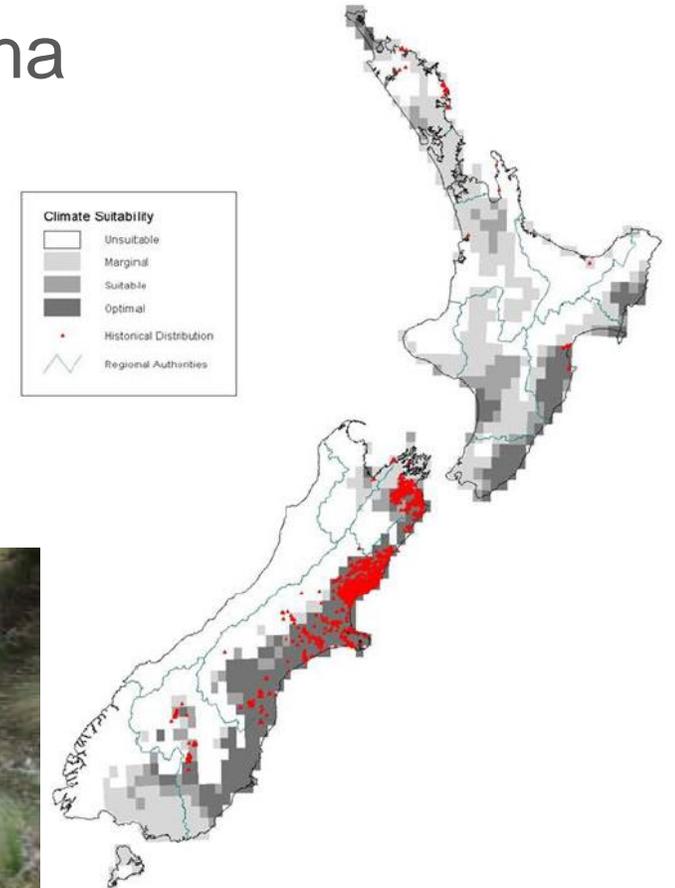


Why is biosecurity important

Example of a plant pest



- Nassella tussock infests approximately 648,000 ha
- It has the potential to infest 12 million hectares.
- It reduces livestock carrying capacity (up to 90% loss in heavily infested pastures)
- Costs of control are \$27 million



Why is biosecurity important

Example of an insect pest



- Brown Marmorated Stink Bug could reduce GDP by \$1.8 billion to \$3.6 billion by 2038
- Horticulture exports reduced by \$2 billion to \$4.2 billion in total.
- In the wine industry, this would mean approximately \$600 million in forgone export revenue by 2038.



Biosecurity risks Marlborough

BIOSECURITY RISKS

PASTURE PLANTS	BUSH PLANTS	PLANTS OF INTEREST
African feather grass	Banana passionfruit vine	African feather grass
African love grass	Barberry	African love grass
Aligator Weed	Boneset	Ash Fraxinus
Barberry Berberis	Bushy asparagus	Australian sedge
Barberry Darwin	Cape ivy	Baccharis
Barley Grass	Cathedral Bells	Beggars tick
Bathurst Bur	Chilean flame creeper flame	Bell heather
Blackberry	Chilean flame creeper glory	Bermuda buttercup
Boxthorn	Chocolate vine	Bur Daisy
Buckthorn	Clematis introduced	Burdock
Broom	Climbing Asparagus	Canary reed
Broom sedge	Climbing Spindleberry	Cape honey flower
Buddleia	Eel Grass	Capra assasinus
Californian Thistle	Egeria	Carex pendula
Cape Weed	Elder	Chilean mayten
Chilean Needle Grass	False tamarisk	Chinese Pennisetum
Coltsfoot	German ivy	Common polypody
Contorta Pine	Himalayan honeysuckle	Cotton Thistle
Crack willow	Jerusalem Cherry	Entire marsh wort
Douglas Fir		
Field Horse		
Field Horse		
Giant butte		
Goat's rue		
Gorse	Privet	Hornwort
Heather	Rough horsetail	Horsetail (rough)
Holly Ilex	Rum cherry	Johnson grass
Horehound Marubium	Senegal tea	Kangaroo Grass
Kikuyu	Silver birch	Knotweed
Kikuyu Grass	Spartina	Lagarosiphon
Nassella tussock	Sweet Cherry	Mistflower Ageratina
Nodding Thistle	Sycamore	Nardoo Marsilea
Noggora bur		
Pampas		
Parthenal nettle		
Ragwort Senecio		
Ring fern		
Rip gut broome		
Spanish heath	Wild Russell lupin	Pig's ear
Spiny broom	Woolly nightshade	Plectranthus * Plectranthus
St John wort	Yellow water lily	Plumeless thistle
Sweet brier		prolifera
Tree lupin		Pynegrass
Variogated thistle		Purpleloosestrife
Wilding Pinus Radiata		Red-flowering currant
Wilding mountain pine		Reed sweet
Wilding douglas fir		Rook
Wilding ponderosa pines		Rowan Sorbus
Wilding Muricata pines		Rum cherry
Wilding Scots pines		Saffron Thistle
Wing thistle		Sagittaria platyphylla
		Sheeps bur
		Spiny broom

We have it under control

Yeah, Right

POSSIBLE RISKS		
PLANTS OF INTEREST <i>continued</i>	ANIMALS	DISEASES IN NZ
Spur valerian	Canada goose	Adenovirus
Spurge laurel	European hedgehog	Bovine respiratory syncytial virus
Sweet reed grass	Feral cats	Bovine Virus diarrhoea (BVD)
Tall wheat	Feral deer	Brucellosis
Vipers bugloss	Feral goat	Coccidiosis
White edged nightshade	Feral pigs	Colibacillosis
Wild cotoneaster	Hares	Cryptosporidiosis
Wild elaeagnus	Koicara	Dermatophilosis
Wild thyme	Magpies	Enzootic pneumonia
Willow leaved hakea	Mustelids	Infectious bovine rhinotracheitis (IBR)
Yellow bristle grass	Rabbits	Johnes
	Rats	Leptospirosis
	Rooks	Listeriosis
	Sulphur-crested cockatoo	Lumpy jaw
	Wallaby	Malignant catarrhal fever (MCF)
		Mycoplasma bovis
		Neosporosis
		Pink eye
		Pseudocowdria
		Ring Worm
		Rotavirus
		Salmonellosis
		Theileriosis
		Tuberculosis
		Woody tongue
		Yersiniosis
	INSECTS	DISEASES OUTSIDE NZ
	Argentine ant	Anthrax
	Clover Root Weevil	Bluetongue
	Lucerne Weevil	Q Fever
	Varga mite	Rabies
	Wasp German	Foot and Mouth
		Rhinopneumonitis

Activity



Listen to this introduction to on-farm biosecurity

[Link to presentation on biosecurity Beef + Lamb NZ](#)

[Link to Dairy NZ biosecurity page](#)