BIOSECURITY FAILURES IN AUSTRALIA: 12 CASE STUDIES

6. MEXICAN FEATHERGRASS

A case study of the critical importance of correct labelling and the laxness of enforcement on illegal internet sales.

Species: Mexican feathergrass (*Nassella tenuissima*)

Origin: North and South America

Australian occurrence: Imported illegally or in ignorance by the nursery trade several times and sold widely. Recorded spreading from a garden at Tamworth in 2004 but eradicated.[99] Recorded naturalised in the ACT in 2004 but eradicated.[100] It is highly likely to have naturalised somewhere.

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Potential ecological impacts: Mexican feathergrass has been described by weed experts as 'a potential disaster for the Australian environment'.[101] It is a high-fibre, low-protein grass of no grazing value to livestock,[102] that presumably has no value to kangaroos and other native grazers. Its unpalatability gives it an edge over native grasses which, because they have to contend with grazing pressure, are at risk of being displaced. In South Africa Mexican feathergrass has become so invasive in native grasslands it is one of seven grasses to be listed a Category 1 weed.[103] In New Zealand it forms pure stands in low-growing plant communities, especially in harsh sites, and prevents the seedlings of native species establishing.[104] It is listed as a noxious weed in California.[105] In Australia it is considered a threat to eucalypt woodlands and native grasslands, with modelling by the Queensland government indicating that up to 169 million hectares could be at risk, in a wide band extending across Queensland to include more than half of New South Wales and large areas of Victoria, South Australia and Western Australia.[106] In its native range it habitats range from semi-arid woodlands to alpine meadows on soils and in sites of 'extreme variability' over a wide altitudinal range.[107] It is closely related to serrated tussock (N. *trichotoma*), which is causing severe environmental damage to native grasslands in NSW.[108]

Pasture experts often talk about 'increasers' and 'decreasers', referring to the responses of plants to grazing pressure. Mexican feathergrass and other *Nasella* species are classic increasers that take advantage of the grazing pressure on palatable grasses to replace them. Mexican feathergrass is a popular ornamental grass in North America because it is so easy to grow, but nursery websites there warn about its propensity for rapid spread. The closely related Chilean needle grass can produce more than 20 000 seeds per square metre.[109]

Potential economic impacts: Mexican feathergrass is closely related to serrated tussock and Chilean needle grass (*N. neesiana*), which were both designated Weeds of National Significance because they displace palatable grasses from pastures and have seed awns that contaminate wool.[110] A Queensland government pest plant risk assessment concluded that if Mexican feathergrass spreads widely 'the impact on beef and wool

[99] Maguire (2005)
[100] Csurhes (2008)
[101] McLaren et al. (2004)
[102] Csurhes (2008)
[103] Milton (2004)
[104] Weedbusters (nd)
[105] California Department of Food and Agriculture (2003)
[106] Csurhes (2008)
[107] Jacobs et al. (1998)
[108] McLaren et al. (1998)
[109] Csurhes (2008)
[110] Csurhes (2008)

production could be substantial'.[111] Serrated tussock, which is estimated to cost NSW agriculture more than $40 million annually,[112] is said to be causing a greater reduction in pasture carrying capacity than any other weed in Australia,[113] yet Mexican feathergrass is thought to be capable of occupying 6 times the area of Australia.[114] In New Zealand Mexican feathergrass is banned from propagation, distribution and sale by the Waikato Regional Council because it is considered a serious threat to New Zealand's agricultural industries.[115]

Pathways: Imported as a nursery plant under incorrect or outdated names. In 2009 a nursery imported Mexican feathergrass seeds by incorrectly labelling them as *Stipa lessingiana*, which is a permitted import.[116] Mexican feathergrass is not. A similar violation had occurred in 1996 when a Victorian nursery imported the seeds by labelling with an earlier valid scientific name, *Stipa tenuissima.*[117] Mexican feathergrass has also been sold by a Sydney nursery as a native grass 'elegant spear *Austrostipa elegantissima*', perhaps as a result of another improper importation.[118] In 2007-2008, it was sold widely in Queensland after being labelled as *Stipa capillata* and *Stipa capriccio* by an interstate supplier.[119]

Mexican feathergrass can easily be bought online through Ebay, as demonstrated by ISC (see case study 17). Complaints to Ebay have not resulted in any action to stop such sales. Interception of illegal goods in the postal system is difficult given the volume of items.

Summary of biosecurity issues: The multiple quarantine breaches show how easily a ban on importation of a plant can be rendered useless by importers labelling seeds with erroneous or out-of-date names. The demonstrated ease of buying this plant illegally from overseas through Ebay and other online traders exposes major enforcement weaknesses.

Particular biosecurity issues

Quarantine: Mexican feathergrass is a prohibited import but was accepted through quarantine in 2009 because the seeds had been labelled as something else.

Taxonomic expertise: The quarantine service lacked the expertise to know if the imported seeds were those of *Stipa lessingiana*, as claimed on the label, or something illegal. Quarantine officers regularly place trust in the names applied by importers rather than having the skills to confirm identifications.

Learning from past failures: After a nursery imported Mexican feathergrass seeds in 1996 by labelling them '*Stipa tenuissima'*, a paper was written about this serious breach, titled 'Mexican feather grass (*Nassella tenuissima*) a potential disaster for Australia', by five experts, including a member of the Australian Quarantine and Inspection Service.[120] The 2009 violation of quarantine was remarkably similar to the 1996 violation, showing that nothing had been learned. The public can have no confidence that similar mistakes will not keep recurring. Because ornamental grasses are typically very hardy they have become popular for landscaping traffic islands, golf course roughs, parks and gardens and further importations of grass seeds by nurseries can be expected. The nursery trade often markets plants under the names of horticultural varieties rather than the correct scientific names, or under incorrect scientific names, making it likely that mislabelled seeds will be imported in future.

Enforcement: A Victorian-based seed importer and distributor, Ball Australia, was fined in May 2009 for illegally propagating and distributing Mexican feather grass. It was a very small fine – just $12,000. The

[111] Csurhes (2008)
[112] Jones and Vere (1998)
[113] McLaren et al. (2004)
[114] McLaren et al. (2004)
[115] Waikato Regional Council (ND)
[116] Minister for Agriculture (2009)
[117] McLaren et al. (1999)
[118] Jacobs (1998)
[119] Anonymous (2008a), Anonymous (2008b)
[120] McLaren et al. (1999)

company also paid $20,000 compensation to DPI to help with clean-up costs. One of the wholesale nurseries involved, Oasis Horticulture, was fined $3000 for a similar offence and paid $5000 contribution toward clean-up costs.

The fact that Mexican feathergrass has been illegally (even if unintentionally) sold through nurseries multiple times over many months suggests a lack of surveillance by biosecurity compliance officers. The grass was brought into the country as seeds and incorrectly labelled and sold throughout Australia. A nation-wide recall and search was carried out in an effort to locate all the plants, but some may still be growing in gardens. It was reportedly sold for over a year in many Queensland nurseries before being detected in 2008.[121] ISC has been advised by the Victorian Department of Environment and Primary Industries that Mexican feathergrass is regularly observed in Melbourne gardens.

As outlined in case study 17, ISC conducted a test to determine how easy it is to buy Mexican feathergrass online from overseas. This was done after advice from a state government biosecurity officer that repeated requests to Ebay to stop illegal sales of Mexican feathergrass had failed and after ISC also reported illegal sellers to Ebay with no action resulting. ISC was able to buy seeds (for $4.44) reported to be those of Mexican feathergrass from the United States, with the seeds arriving in the mail 9 days after the order through Ebay. The seeds of two other banned plants were also bought through Ebay. A link to information on Ebay about Australian quarantine regulations for postal items resulted in a 'page not found' error. In August 2014 there were at least 3 sellers of Mexican feathergrass advertising through Ebay to Australian buyers. Australia urgently needs a compliance program to monitor online sales and enforce biosecurity laws to prevent illegal sales of prohibited plants and other organisms.

We strongly recommend the development of a strategy to reduce the risks of online selling of non-permitted organisms.

Issues for the inquiry

Pathway risk reduction

- What are the flaws in biosecurity that have made it easy for nurseries to repeatedly import a prohibited plant?
- Should Australia be allowing the importation of grass seeds when grasses make up such a large proportion of Australia's weediest plants and when mistakes in grass seed identification are easily and repeatedly made? Why allow the importation of risky foreign grasses when they bear such close resemblance to native grasses that mistakes about identification have been made?
- Has any pathway analysis been done for Mexican feathergrass to identify biosecurity gaps?

Surveillance and enforcement

- Has there been any assessment of the range of prohibited imports available for sale online and the extent of illegal sales online?
- Does Australia have a compliance strategy for illegal internet sales of prohibited imports? If so, how has the strategy been implemented?
- Is there regular surveillance of nurseries to check whether prohibited plants are being sold?

Commercial behaviour

- What are the policies of online traders when they receive complaints about the sale of prohibited plants to Australia? How often are complaints received and for what items?
- What can be done to prevent online traders selling highly invasive species?

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[121] Anonymous (2008b)

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