

DPI Primefact

What is and what is not a priority weed under the NSW Biosecurity Act

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Philip Blackmore, State Priority Weed Coordinator, Invasive Species Biosecurity, BFS

Introduction

Weeds are plants that can cause problems. They can cause problems for farmers, gardeners, communities, animals, other plants and the environment. Many weeds are little more than a nuisance, while others can cause serious losses in crop and livestock production, threaten biodiversity and ecological communities and affect our health and wellbeing.

Weeds which pose the greatest threats through invasion and spread may be required to be controlled by law. The law which regulates weed management in NSW is the *Biosecurity Act 2015*. The Act establishes a legal duty called the general biosecurity duty which requires people to be aware of the impacts their practices - be they commercial, professional, volunteer, recreational or lifestyle practices - might have on the economy, environment and community, and to take action to prevent those impacts from happening. Everyone in NSW has a general biosecurity duty and this duty applies to weeds, vertebrate and invertebrate pests, pests and diseases of plants and animals, nuisance bees and contaminants of products.

The general biosecurity duty potentially applies to all weeds which could cause a biosecurity impact. Regional Weeds Committees, which are advisory committees to Local Land Services,

Glossary

- **Biosecurity risk** – the risk of a biosecurity impact occurring.
- **Biosecurity impact** - an adverse effect on the economy, the environment or the community... related to the introduction, presence, spread or increase of a pest including weeds into or within NSW or any part of NSW.
- **Biosecurity matter** - any living thing or part of animal, plant or living thing or product of a living thing, in all cases other than a human, and includes a disease, a disease agent or a contaminant.
- **Carrier** - anything (whether alive, dead, or inanimate and including a human) that has, or is capable of having, any biosecurity matter on it, attached to it or contained in it.
- **Reasonably practicable** – in relation to the prevention, elimination or minimisation of a biosecurity risk; what is reasonably able to be done taking into account the biosecurity risk, the biosecurity impact, knowledge of the biosecurity risk and ways of dealing with that risk, the availability of methods to deal with the risk and the costs of dealing with the risk and whether the costs exceed the benefits.

identify and prioritise a limited number of weeds which have been assessed as posing a demonstrable, significant biosecurity risk to that region. The committees make this assessment by applying the NSW Weed Risk Management system, a nationally accepted and transparent process which evaluates weed risk and the feasibility of coordinated control.

Weeds will be considered as possible Priority weed species where they:

- have the potential to cause harm to individual and community interests,
- can spread and establish in areas where they do not currently occur,
- can be controlled by reasonable means,
- currently do not occur or occur in limited distribution, in NSW or in a region of the state.

Weed risk management

Under the Weed Risk Management System, weeds assessed to be a high biosecurity risk and to have a high feasibility for coordinated control at a location will be considered for eradication where incursions have been detected recently and are yet to establish a large self-sustaining population. Eradication is defined as “the elimination of every single individual (including propagules) of a species from a defined area in which recolonisation is highly unlikely”. Weeds prioritised for eradication may have a higher level of legal obligation beyond that imposed by the General Biosecurity Duty. These weeds are referred to as State Priority weeds and are usually listed as Prohibited Matter with the Biosecurity Act or under a Control Order. See NSW WeedWise for a list of these weeds - <https://weeds.dpi.nsw.gov.au/Home/Search>.

Weeds assessed to be of medium biosecurity risk and to have a high feasibility for coordinated control within NSW or a region are less likely to warrant the costs of eradication. Whereas weeds assessed to be of high biosecurity risk, but only medium feasibility of coordinated control within NSW or a region are unlikely to be eradicated. In both cases the focus will instead be to contain the weed (that is, implement programs of enforced control and legal limits on sale and movement of the weed and its propagules) to limit further spread within the management area. Containment can be either absolute (stopping spread) or relative (slowing spread). These weeds may be State Priority weeds, where a Biosecurity Zone Regulation is in place or listed as Regional Priority weeds.

Where a weed species has become widespread (that is, low to negligible feasibility of coordinated control), there is little to be gained from attempting to prevent further spread. Biosecurity risk treatment needs to focus on reducing the impacts of those species. This involves developing and promoting targeted control techniques, with investment into research and education/advisory activities. For most weeds this means the development of improved control techniques available to landholders by NSW DPI and their research partners. NSW DPI, Local Land Services, Local Control Authorities and commercial agronomists are available to provide advice for these widespread species.

Each of the eleven NSW Local Land Services regions develops Regional Strategic Weed Management Plans that list the regional priority weeds and set the minimum acceptable control requirement for each of those priority weeds in that Local Land Services region. People who implement these requirements are meeting their general biosecurity duty. These requirements apply equally to all owners and occupiers of land in the region including local and state government agencies and people in charge of carriers of weeds.

Externalities and weed spread

Underpinning the Biosecurity Act is an economic principle known as externality.

Externalities occur when the actions of individuals impose unintended impacts on others. Externalities can create external costs and external benefits. People who have external costs imposed on them are typically not compensated for their loss, while people who receive an external benefit are not required to pay for their good fortune. Examples of external costs are passive cigarette smoking, unpleasant odours from a feedlot, pollution from factories, and water being diverted upstream.

When weeds spread from an infested area into new areas, the landholders in the newly infested areas suffer external costs because of the weed spread. These may include the loss of production, loss of biodiversity or loss of an amenity value, as well as the direct costs of control work. The landholders are not compensated for these losses by the owner of the land from where the weed spread.

Weed spread in this case means the *introduction and establishment* of weeds in an area where they did not previously occur. This is different from an increase in *weed density* in an area where the weed has already established but at varying densities across numbers of properties.



Figure 1. Wetlands sunset, Murray River. An example of a landscape the Biosecurity Act aims to protect from weeds.

Weeds biosecurity law aims to minimise external costs of weed spread to the people of NSW

Unchecked weed spread imposes costs to landholders who previously did not have the weed on their properties. The existence of externalities can prompt governments to make laws to correct the cause of the externality for the benefit of the community. State governments in Australia have managed the problem of weed spread for many years by making law that requires landholders to control a small number of named weeds before they spread to other areas. Weed management law has existed in NSW since 1906, in Victoria since 1856 and in South Australia since 1852.

When control of a weed becomes compulsory, all landholders must control the weed to prevent, minimise or eliminate the risk of a biosecurity impact to their neighbours, unless control is not **reasonably practicable**. The cost of controlling a weed at an early stage of spread will be an imposition to a few individuals but this is preferable to allowing a far greater burden to be imposed on the rest of the community by unrestrained weed spread.

Why do landholders need legal support to manage spread of new weeds?

Landholders could try to sort out their own problems caused by weed spread from other properties. They might try to buy a neighbouring weed infested property or take legal action on the owner of the property from where the weeds spread. A landmark legal case in New Zealand civil courts saw the Auckland City Council successfully sued by a private citizen under the tort of private nuisance for not controlling weeds. The private citizen was awarded compensation as the council failed to control weeds (French v Auckland City Council [1974] 1 NZLR 340).

But these approaches to weed management present challenges. For example, the owner of a weed infested property may not wish to sell, or the neighbouring landholder may not have the necessary funds or borrowing capacity to make such a purchase. Litigation is slow and expensive and may not produce the desired result. In both cases, weed spread is not prevented from occurring and are only a method of seeking redress. For these reasons, neither of these approaches is an acceptable method to resolve community disagreements caused by weed spread. Regulating a small number of priority weeds is the accepted method for minimising external costs caused by weed spread.

Many of the weeds that cause the biggest problems are not priority species. Why not?



Figure 2. Paterson's curse – a widespread weed in Australia which is poisonous to grazing animals.

Eradicating a new weed invader or slowing the rate of weed spread is most likely to be successful when the weed is prioritised for control at an early stage of invasion into an area. If there is delay in establishing minimum control requirements and the weed becomes widely distributed before it is identified as a priority

weed, further spread of the weed will be more difficult to prevent. This is because it is difficult for all affected landholders to kill every weed before those weeds set seed, leading to an increase in the bank of seeds in the soil on all affected properties.

When a weed species becomes commonly established on most properties in an area, direct costs to each landholder caused by the presence of the weed tend to increase but external costs caused by the weed spreading from property-to-property decline. These effects occur because most landholders in the area are managing the weed growing from seed already present in their soil (the seed bank), than by managing weeds growing from seed spreading to their land from other properties.

The effect of biosecurity law is to prevent the creation of external costs such as those caused by weed spread. When a weed species has spread to the point that it is established on most

properties in an area and become widespread, external costs are no longer being created. It then becomes difficult to justify a legal requirement that landholders must control the weed species in that area unless most landholders in an area strongly support regulated control. However, widespread weeds will generally not score sufficiently well under the Weeds Risk Management system to be considered for inclusion in a Regional Strategic Weed Management Plan.

In areas where a weed is widespread and not listed as a regional priority in a Regional Strategic Weed Management Plan, landholders should still minimise the biosecurity risk to any neighbours but may otherwise choose the level of weed control appropriate to their own best interest. One person's weed might be another person's valued plant, or at least a plant of no consequence.

Land managers who need advice on controlling widespread weeds on their land should contact an agricultural advisor from Local Land Services, an agronomist from a private firm, industry or farming groups or a bush regeneration team, depending on their use of the land and the type of weeds that need to be managed. NSW DPI can also provide advice on current research, especially in regard to new weed biological control options, for example; <https://www.dpi.nsw.gov.au/biosecurity/weeds/weed-control/biological-control/biological-control-of-weeds-manual>.

Conclusion

The Biosecurity Act creates a general biosecurity duty. Local Land Services, through their Regional Weed Committees and their Regional Strategic Weed Management Plans, identify particular weeds for control and recommend measures landholders should take to prevent that weed from having an adverse impact. Landholders that implement these measures discharge their general biosecurity duty.

Weeds prioritised for eradication may have a higher level of legal obligation beyond that imposed by the General Biosecurity Duty. Led by DPI, these weeds are referred to as State Priority weeds and are usually listed as Prohibited Matter with the Biosecurity Act or under a Control Order.

The intent of these measures is to prevent weeds from spreading into new areas and the external costs caused by that spread. Imposing such control measures at an early stage in a weed's spread is cost effective and the best use of government resources. It minimises the number of individuals who are affected by the weed and those who are burdened by the duty to implement control measures. In so doing, it achieves the best outcome for the community, economy and environment.

State and regional weed planning and compliance efforts will continue to focus on preventing, eliminating and minimising biosecurity risks caused by new weed incursions to a region. Conversely, managing weeds that have become widespread in a region is a private benefit and is not something that can be achieved by using a regulatory approach. Landholders who wish to control widespread weeds should seek advice from a Local Land Services agricultural advisor, a private agronomist, a bush regeneration team or NSW DPI on current research.

Acknowledgement

Nicola Dixon, State Priority Weed Coordinator, Invasive Species Biosecurity, BFS

Further Reading

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