

Noxious weeds or just obnoxious?

Philip Blackmore

Regional Coordinator (Weeds), Armidale

This Primefact should be read in conjunction with Primefact 252, *Noxious Weed Declarations* and Primefact 410, *Resolving Conflicts in Weed Management*.

Introduction

Weeds are plants that cause problems. They cause problems for farmers, for gardeners, for public utilities and for conservation.

Many weeds are little more than a nuisance, while others can cause serious losses to crop and livestock production, threaten ecological communities and harm the health of people.

Some significant weeds are required by law to be controlled. These are known as noxious weeds and the law in New South Wales is the *Noxious Weeds Act 1993*. The Act requires all landholders in a defined area, including local government and state government agencies, to control noxious weeds on land they occupy. It also prohibits the sale of some noxious weeds and the sale of goods contaminated by those noxious weeds.

The term 'noxious weed' is a descriptive title for a legal definition. This may lead to some misunderstanding. Noxious weeds are more than just 'really bad weeds'. Weeds declared noxious have a range of characteristics. As well as the potential to cause harm to community and individual interests, they will be controllable by reasonable means but most importantly, they will be likely to spread within an area and to other areas.

Weeds are declared to be 'noxious' under the *Noxious Weeds Act 1993* by the Minister for Primary

Industries. The Act makes control of most noxious weeds compulsory.

Externalities and weed spread

Underpinning the Noxious Weeds Act is an economic principle known as 'externality' or 'external cost'. Externalities occur when the actions of individuals impose unintended impacts on others. Externalities occur as both external costs and external benefits. People who have external costs imposed on them are 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 unpleasant odours from a feedlot, pollution from factories, water being diverted from a stream, affecting downstream users, passive smoking and the spread of weeds from an infested area to an uninfested area. The existence of externalities may justify governments making laws to correct the cause of the externality for the benefit of the community as a whole.

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

State governments in Australia have attempted to manage the problem of weed spread by making law that requires landholders to control particular weeds before they spread to other areas. The Noxious Weeds Act is the current law for managing weed spread in NSW. Earlier noxious weed law has existed in NSW since 1906.

Why don't landholders sort out their own problems with spreading weeds?

Landholders could try to sort out their own problems caused by weed spread from other properties. They might try to buy the weed infested property or sue the owner of the property from where the weed spread.



However, significant transaction costs are involved in the purchase of a neighbour's property purely for the purpose of weed control. Moreover the opportunity may not arise or an individual farmer may not have the necessary capital for such a purchase. Civil court action tends to be slow and expensive. In addition, litigation may not produce the desired result and does not prevent weed spread from occurring in the first place.

For these reasons, neither of these approaches is an acceptable method to resolve community disagreements caused by weed spread.

What is the economic effect of noxious weeds?

Noxious weed law attempts to minimise the economic costs associated with weed spread. Weed spread that is unchecked by landholders imposes costs to other landholders. However, when a weed species is declared noxious and control of that weed becomes compulsory, landholders must control the weed to reduce or eliminate these impacts to their neighbours. But the neighbours who are protected by the Noxious Weeds Act from having their properties infested are not required to compensate the other landholders for carrying out that weed control.

The cost of controlling a plant 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 community by unrestrained weed spread. The restrictions imposed by the Noxious Weeds Act will limit a landholder's management choices.

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

Most noxious weed species must be controlled by landholders to prevent spread to other properties and to other localities. A noxious weed declaration is most effective at minimising the rate of weed spread if it is made at the early stage of a weed's invasion of an area. However, if there is delay in declaring the weed noxious and it becomes widely distributed before it is declared, further spread of the weed will be more difficult to prevent. This is because it is difficult for landholders to kill every weed before they set seed, leading to an increase in the bank of seeds in the soil.

When a weed species spreads and becomes commonly established on most properties in an area that had previously been free from the weed, landholders are affected in two ways. Direct costs to each landholder caused by the weed tend to increase, while the creation of external costs caused by the weed spreading from property to property tends to decline. These effects occur because most landholders in the area become more troubled by the weed growing from seed already present in their soil (the seed bank), than by the same weed spreading to

their land from other properties. In effect, landholders are growing their own weeds.

The purpose of noxious weed law is to prevent the creation of external costs caused by weed spread but when a weed species has spread to the point that it occurs on most properties in an area, 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 the majority of landholders support compulsory control.

In areas where a widespread weed is not declared noxious, landholders will 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. Governments are generally reluctant to interfere with an individual's management choices where they do not adversely affect others. Department of Primary Industry and private agronomists, as well as local government weeds officers, are available to provide advice on weed management.

Conclusion

The *Noxious Weeds Act 1993* requires landholders to control particular weeds. It also prohibits the sale of particular weeds. The Act may restrict the way individuals choose to manage their land or engage in trade. The purpose of these restrictions is to prevent weed spread and the external costs caused by that spread.

Weed control can be expensive and time consuming. Landholders who are required to control a weed by the Noxious Weeds Act receive no direct compensation for the cost of that control. Yet that weed control may not provide any personal benefit.

Imposing these restrictions at an early stage in a weed's spread is cost effective and the best use of resources. It minimises the number of individuals who are affected by the weed and also those who are burdened by the compulsory control measures. In so doing, it achieves the best outcome for the whole community.

Acknowledgements

Syd Lisle, NSW Department of Primary Industries, Orange.

Further Information

Menz, K.M. and Auld, B.A. (1977). Galvanised burr, control and public policy towards weeds. *Search*, 8: 281-7.

Jones, R.E. (2000). The economics of weed control. In *Australian Weed Management Systems*, ed. B.M. Sindel, pp 267-83. R.G. and F.J. Richardson, Melbourne.

Gardner, A. (1998). The duty of care for sustainable land management. *The Australasian Journal of Natural Resources Law and Policy*, 5(1): 29-63.

Panetta, F.D. and Scanlan, J.C. (1995). Human involvement in the spread of noxious weeds: what plants should be declared and when should control be enforced? *Plant Protection Quarterly*, 10(2): 69-74.

Noxious weeds legislation

A full list of noxious weeds and requirements under the *NSW Noxious Weeds Act 1993* and a complete list of NSW DPI weed publications can be found at www.dpi.nsw.gov.au/weeds

© State of New South Wales through NSW Department of Primary Industries 2008. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute NSW Department of Primary Industries as the owner.

ISSN 1832-6668

Job number 6913

Check for updates of this Primefact at:

www.dpi.nsw.gov.au/primefacts

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (January 2008). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Primary Industries or the user's independent adviser.