

Weed strategies following drought, fire and flood

Bob Trounce

Former Agronomist Weeds

James Dellow

Agronomist Weeds, Weeds Unit, Orange

Introduction

Because of their greater competitiveness, weed species readily invade bare areas of ground which have been denuded of vegetation. Drought, fire and even floods can create these conditions as they devastate existing ground cover, thereby removing all competition for light, nutrients, moisture and space. This devastation allows quick weed establishment when more favourable conditions arrive. Weeds already on the property may quickly spread to new areas, and weed densities increase.

The two classes of land most at risk of weed invasion are cropping and grazing land. Cropping land is most at risk through weed imports in contaminated seed at sowing time and weed seed being spread from contract machinery – especially harvesters. Grazing land is at risk of weed importation through contamination of fodder, and weed seed may be inadvertently spread around a property at the time of feeding, or in the animals' dung, days after the contaminated fodder has been eaten. Animals introduced onto a property, either in a restocking program or returning from agistment, can also introduce weeds.

The presence of livestock on a property will usually allow some weeds to establish to the detriment of desirable species as these weeds are unpalatable and are therefore not readily grazed.

Not only is it important to avoid importing new weeds generally, but also to avoid introducing strains of common weeds which are resistant to herbicides. Ryegrass is particularly dangerous, especially on land which is sown to crops.

It is important to have a strategy in place for combating potential weed problems before, not after, they occur.

Livestock owners

- Obtain as much detail as possible about the source of the fodder or grain that is being brought onto the property.
- Consider carefully where the grain and fodder are to be fed. In considering herbicide resistance, it is best to avoid cropping paddocks.
- Restrict the feeding area as much as possible. A small 'sacrifice paddock' may be the best option, preferably located where regular checks can be made after each incident of rain. Flat, arable areas are the best selection as these usually allow easy access and the opportunity for many options for control (mechanical, chemical, biological or grazing management).
- In areas where there is the basis of a good, strong perennial grass pasture, feed in this area as it will provide quicker competition against establishing weeds.
- Livestock are excellent distributors of weed seeds, and for many weeds a livestock quarantine period of at least 2 weeks is recommended. This includes holding livestock returning from agistment.
- Restrict the movement of livestock. Fortunately, annual ryegrass seed is normally digested by sheep, and very little viable seed passes through the digestive tract.
- Keep a close watch for unknown plants and have them identified early. Don't let them establish and set seed. (See the section 'Information and plant identification' at the end of this document.)

Council staff

- A general weed alert should be publicised by councils in all areas at risk.



- All council weeds officers should identify the properties in their areas most at risk. These are normally properties which have imported fodder from areas of known weed infestations, such as parthenium weed areas of Queensland.
- As soon as rains fall, roadsides should be inspected every 4 weeks.
- All properties considered at risk should be inspected as soon as possible after first sightings of weeds.
- Council staff should familiarise themselves with weeds which grow in areas that supply emergency fodder.

Information and plant identification

A list of potential weeds from the southern States of Australia can be obtained by referring to the following publications:

- *Crop Weeds*, by J.L. Wilding, A.G. Barnett and R.L. Amor, Inkata Press, Melbourne and Sydney 1986.
- *Weeds – An illustrated botanical guide to the weeds of Australia*, by B.A. Auld and R.W. Medd, Inkata Press, Melbourne 1987.
- *Noxious Weeds of Australia*, by W.T. Parsons and E.G. Cuthbertson, Inkata Press, Melbourne and Sydney, revised edition November 2000.

For information on paddock management or weed control options, consult your district agronomist. These officers can also assist with identification of unknown plants. Alternatively, you can contact your local council weeds officer.

Plant specimens which are not identifiable locally can be pressed in dry newspaper for a few days and then forwarded by mail, along with details of where the plant was growing, to the National Herbarium of NSW at the following address:

Botanical Information Service
National Herbarium of NSW
Royal Botanic Gardens
Mrs Macquarie's Road
Sydney NSW 2000
www.rbg Syd.nsw.gov.au/conservation_research/herbarium_and_services

Further information

For more information see [Primefact 430 What impact does drought have on weeds?](#)

© State of New South Wales through NSW Department of Primary Industries 2007. 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

Replaces Agnote DPI-351

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 2007). 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.

Job number 7199