



# Managing Weeds in Pastures

**Weed control in pasture** is an important issue for smaller landholders (5 and 10 acre blocks) as well as for graziers with large holdings. In addition to landholders' legal obligation to control weeds declared under the *Land Protection Act 2002*, pastures suffering from weed infestation provide less feed for stock and are a source of weeds for other pastures as well as the environment. Degraded pastures may also be at greater risk of erosion, contributing to decreases in water quality in our rivers, creeks and coastal waters.

Horses are able to selectively and heavily graze pastures - causing alternating lightly and heavily grazed patches and increasing the likelihood of weed invasion and erosion.



Photo: equiculture



A local horse paddock—weeds take hold in heavily grazed sections.  
Photo: C. Peterson

## Integrated Pest Management

The use of herbicides, while often effective, can become costly in the long term. Weeds are able to quickly re-establish themselves from seed stored in the soil, or underground plant parts and will often dominate a treated area, particularly if non-selective herbicides are used as they kill or inhibit the vigour of desirable species. It is recommended that a combination of methods be used. This is called Integrated Pest Management.

Starting weed control can be a daunting task. It is often easier to treat larger areas in stages, one small patch at a time. These can be prioritised, by treating the *least* affected areas first, as these areas will regenerate more quickly and with less treatment than severely weed affected areas. If the block is sloping or has a creek or gully running through it, it may be worth starting treatment at the top to minimise further infestation of downhill or downstream areas.

## Chemical Control

Herbicides may be non-selective which kill or affect grasses and broadleaf weeds (eg. Glyphosate), or selective against either grasses or other weeds eg. Grazon kills broad-leaf and woody weeds. Herbicides are registered for use for specific weeds and/or situations. It is a legal requirement that weeds are sprayed only with the appropriately registered chemical and according to the directions for use. Application rates are recommended to protect the user, the environment and also because they are the most suitable rate to control the particular weed – more is not always better.

Wetting agents or surfactants such as Pulse or BS1000 can be used to enhance the effectiveness of the herbicide by increasing the uptake of the chemical into the plant. Some people have recommended that soaps or detergents can perform this function; however these may in fact inhibit the effectiveness of the herbicide. Use products designed specifically for the task.



Use the right herbicide at the right time. This photo shows regrowth from Sicklepod which had originally appeared dead after spraying. Such poor kills can occur from incorrect chemical, applying chemical too late in the season or when the plant is stressed e.g. drought stressed. Photo supplied.

It is important to read the Material Safety Data Sheet and Instructions for Use for *all* chemicals prior to use. [www.pestgenie.com.au](http://www.pestgenie.com.au)

Herbicide control should be carried out while the weeds are young (small) and actively growing eg. not suffering from drought stress. This may reduce the amount of chemical needed and increase herbicide uptake and effectiveness.

## Mechanical Control

Mechanical control ie. slashing is generally not successful at killing weeds as many re-shoot. However, it may be useful to reduce the size of weeds so that chemical control is more effective and less chemical is needed. Slashed weeds should be allowed to grow a little before chemical application. If chemical control is not possible in the short term, weeds can be slashed *before* seed set, to reduce the amount of new plants for the next season. Slashing should not occur after seed production as this will spread seeds.

## Cultural Control

Introducing competition for light, moisture and nutrients from productive pasture species or trees can control weeds. Reducing grazing pressure can help allow desirable pasture species to grow, which may in turn create competition against weeds. These species should be encouraged via sowing, fertilising or paddock spelling—or a combination of all of these.



Woody weeds dominate overgrazed paddocks  
Photo: D. Pepplinkhouse

### Some suitable grasses for pasture:

- Pangola or African Star grass - both have to be sown from runners into cultivated area (no seed) but are slow to cover therefore it is recommended to oversow with 1 to 2 kg/ha of Callide rhodes grass seed.
- Creeping blue grass (Bisset) - best on well drained soils, sow 2 to 4 kg/ha with 1 kg/ha Callide rhodes.
- Floren blue grass (Angleton grass) - suitable for heavy clay or glue pot soils.



A pasture stocktake point used by graziers to monitor pasture and adjust stocking rates accordingly.  
Photo supplied

Best establishment is achieved by sowing into a cultivated seedbed. If using minimum tillage or an uncultivated seedbed, green grass or weeds must be sprayed out and the seeding rate increased. Seed should not be buried too deep – the area can be rolled after seeding or covered with a light chain.



A good quality pasture with plenty of weed suppression and sustainable production. Photo C. Peterson

The aim is to have vigorous stoloniferous grasses that give 100% ground cover and a lenient stocking rate to ensure at least 15cm to 20cm stubble/growth on the ground. To keep the grasses vigorous adequate nutrients must be in supply. A soil analysis from a Stock and Station Agent (Primac Elders/Westfarmers etc.) will inform if, and in what quantity, nutrients need to be applied. Application of 100 kg/ha of DAP before summer and 100 kg/ha of Urea in March/April will keep pasture growing longer into winter.

It is often easier to manage weeds with pure grass pastures rather than grass/legume mixtures if the use of herbicide is needed. Selective herbicides can be used so that grasses are not killed.

More information can be found at the Tropical Grassland Society of Australia web site <http://www.tropicalgrasslands.asn.au/pastures/> or [www.dpi.qld.gov.au](http://www.dpi.qld.gov.au)

### Ungrazed areas:

In areas that are not used for grazing, planting native trees can help reduce re-infestation from weeds through competition. Whitsunday Catchment Landcare sometimes has free trees available for weed control and habitat enhancement.

***Whichever method or methods are used, monitoring and followup treatments are vital to ensure success of weed control in the long term.***

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### Further Information:

For more information on weed control call Whitsunday Catchment Landcare or Whitsunday Shire Council.

For information on grazing land management contact Department of Primary Industries & Fisheries (DPI&F).

**A very useful publication by DPI&F is “Pastures: Mackay Whitsunday region” available from Whitsunday Catchment Landcare or DPI&F.**

A CSIRO publication, “Managing Horses on Small Properties” is available from [www.publish.csiro.au](http://www.publish.csiro.au)

Information in this brochure was sourced from personal comments from Harry Bishop, DPI&F.