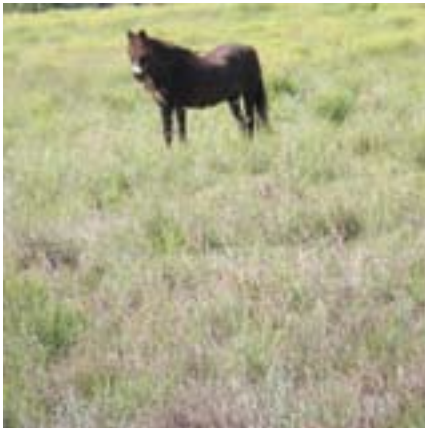


# Horses

## Grazing management in the Lockyer Valley

A horse owner/carer has a responsibility to the immediate environment on the property and also within the wider catchment area. Correct property care, management and planning does not need to be an expensive undertaking. Improved pasture means lower feed bills, helps to reduce mud or dust, improves a horse's health, and reduces vet bills. Correct property care, management and planning results in reduced potential impacts that horses can have on the environment.



Horse paddock in the Minden-Tarampa area. The presence of soft roly-polly (*Salsola kali*) in the background indicates heavy grazing in the past but the paddock shows excellent regeneration with desirable species such as Queensland blue grass (*Dichanthium sericeum*).



A horse in the Minden area with a good body of feed in the very dry year of 2007. The presence of Queensland blue grass (*Dichanthium sericeum*) indicates the paddock has not been continuously overgrazed.

### Effective horse management involves such practices as:

- Pasture improvement,
- rotating horses around paddocks so that pasture has time to recover,
- harrowing larger paddocks to spread manure,
- fertilising when necessary,
- dealing with water and waste, and
- management of horses and their impact on the property and the environment.

The subject of pasture and its management can be baffling to horse owners if they do not have a rural background. Horse paddocks are often regarded as somewhere for horses

to exercise when in fact they should be regarded as a feed source. Managing pastures properly has numerous benefits including:

- Pasture cushions and covers the soil. Without this cover, soil becomes bare and compacted. This leads to dust, mud, weeds and erosion.
- Pasture provides a nutritious, natural feed for your horses at a 1/10 of the cost of buying feed in.
- Pasture filters run off water reducing the amount of pollutants that may enter the waterways.

## Rotate or confine

Unlike cattle, horses have teeth in both the upper and lower jaw, so they are able to graze pasture to much lower levels than other grazers. Horses in the Lockyer catchment are often kept on small holdings with supplementary feed.

Researcher, Arthur Stubbs, for the Rural Industries Research and Development Corporation surveyed horse owners Australia wide and found that the area available for horse grazing in most situations is insufficient to provide enough pasture feed for the number of horses accommodated, even under what would otherwise be considered optimum management conditions.

Mr Stubbs found that the general lack of attention to pasture composition and vigour in these situations resulted in either a greater reliance on purchased feed, and in some cases overfeeding, or excessive grazing pressures due to underfeeding. These circumstances can lead to an abundance of weeds, soil erosion, horse health problems and adverse environmental impacts from dust, flies and weed transfer.



## Grazing Management

The potential for accelerated soil erosion is a major issue for horse management in the Lockyer catchment with significant implications for pasture health and soils as well as sediment contamination of our waterways. Good management practices for grazing horses is to either rotate the horses between several paddocks in order to maintain pasture cover and quality, or to confine the horses to an area where feed is supplied.

Pastures are far easier to manage if horses are rotated in groups around the various paddocks rather than if each horse has its own paddock. Pasture needs time to recover and time to set seed.

Rotational grazing systems used in combination with confinement can increase the productivity of pasture and allow more flexibility in the number of horses that can be kept on a particular piece of land.

Some key points for rotational grazing are:

- Have several smaller paddocks rather than one large paddock in order to allow rotation which contributes to improved pasture growth, parasite control and reduced land degradation.
- Rotation of adequate duration enables grass species to recover from grazing pressure.
- Horses should be allowed to begin grazing a paddock when the pasture has reached an average height of approximately 15-20 cm and moved to another paddock when pasture is grazed down to approximately 5-8 cm.
- Any areas that have less than 70 per cent ground cover or are bare should be spelled or temporarily fenced off with electric tape and mulched.
- When the animals are removed, the now empty paddock should be harrowed to spread manure, mowed or slashed to an even length, then rested and allowed to re-grow.



Time to Reseed – Even if grass is irrigated and fertilized it will not be able to cope with continuous grazing pressure.



Effective grazing management – Rotate horses between several paddocks to maintain pasture cover and quality, or confine the horses to an area where feed is supplied.

## Good pasture cover essential

Good management is essential to avoid overgrazing by horses and to protect the soil and waterways. This can be achieved by maintaining good ground cover (greater than 70%) with a healthy pasture composed of perennial and palatable tussock grasses. The optimum height to which this pasture should be maintained is five to twenty centimetres. This requires strict control of horse access to pasture areas (particularly on smaller properties) to avoid either uneven or overgrazing. Grazing pressures can be relatively high on small properties, which can necessitate the yarding or confining of horses and excluding them from pastures for extended periods of time.

As with cattle grazing, the objective is to maintain 70% groundcover, and a healthy presence of tussocks in the pasture at all times. Key guidelines to achieving this are:

### 1. Fertilisers/Plant Nutrition

Ensure that pasture growth is not limited by lack of plant nutrients, which can be readily supplied by commonly available fertilisers. Soil samples should be taken to determine nutrients, fertilisers and soil conditioners required.

The main priority is to grow a dense, vigorous pasture crop on the grazing area, allowing grazing when ground conditions are suitable and sufficient feed is available.



Horses, with teeth on the upper and lower jaw, can lower pasture to the ground and by continual presence in the paddock trample down pasture, as seen here in a paddock near Gatton.

### 2. Pasture Species

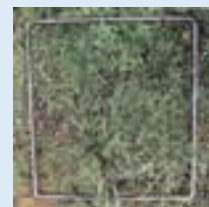
It is important to assess pasture condition regularly. Desirable species should comprise 70% of total grass community. Some of these include:

- Green Panic (*Panicum maximum* var. *trichoglume*),
- Gatton Panic (*Panicum maximum*),
- Queensland Blue Grass (*Dichanthium sericeum*)
- Black Spear Grass (*Heteropogon contortis*),
- Forest Bluegrass (*Bothriochloa bladhii* ssp. *glabra*),
- Kangaroo Grass (*Themeda triandra*),
- Rhodes grass (*Chloris gayana* spp.)

These pasture species are nutritious, productive and resilient plants that respond quickly to fertilising. Pastures dominated by species such as Pitted Blue Grass (*Bothriochloa decipiens*), Red Natal Grass (*Melinis repens*), African Lovegrass (*Eragrostis curvula*), or Rats Tail (*Sporobolus crebra*), are in poor condition and should be managed appropriately to increase the presence of more desirable species. If necessary seek expert advice to help in pasture management and rejuvenation. An indication of overgrazing is the presence of soft roly-polly (*Salsola kali*) or cottonbush (*Maireana* sp) within the pasture.

#### 70% ground cover

Strictly speaking, ground cover is anything that breaks the fall of rain up to 30cm above the ground. It can include grass tussocks, leaf litter, dung, sticks or rocks. The most effective ground cover is attached organic matter, such as grass tussocks, which cannot easily be removed by wind or water. 70% cover means that 70% of the ground is protected by grass or other material and the remaining 30% is exposed.



70% ground cover.

### 3. Yards

Feeding yards, in association with stables or by themselves, are invaluable for small property management. They enable the exclusion of horses from the grazing area when there is not enough feed.



Feeding yards allow paddocks to recover by excluding horses.

If yards are not available, a 'sacrifice' area can be created in the paddock using an electric tape fence, so that the horses can be confined to one part of the paddock while the remainder of the paddock is able to rest and recuperate. It is far better to confine your horses some of the time so that the time they do spend in the paddocks is 'quality time' (eating grass).

A yard should provide about 100 square metres per horse and have a well drained, non-erodible surface (fine rubble and sand).

### Pasture Landscapes of the Lockyer

**Alluvial Soils** – originally lightly timbered with forest red gum (*Eucalyptus tereticornis*) and Moreton Bay ash (*Corymbia tessellaris*).

Common pasture species are Queensland Blue Grass (*Dichanthium sericeum*), Forest Blue Grass (*Bothriochloa bladhii*), and Kangaroo Grass (*Themeda triandra*).

Naturalised grasses include Rhodes Grass (*Chloris gayana*), Green Panic (*Panicum maximum var. trichoglume*) and Paspalum (*Paspalum dilatatum*).

**Scrub soils** – originally heavily timbered with softwood scrub species and often associated with brigalow (*Acacia harpophylla*). Because of the dense nature of the vegetation there is not a strong grass layer.

Once cleared, the grass species composition on these soils is similar to that found on alluvial soils.

**Forest soils** – support predominantly spotted gum (*Corymbia citriodora*) and ironbark communities (*Eucalyptus crebra*, *E. fibrosa* ssp. *fibrosa*, *E. melanophloia*).

Native grasses are Black Spear Grass (*Heteropogon contortis*), Three-awned Spear Grass (*Aristida* spp.), Rats Tail Grass (*Sporobolus crebra*). Exotic grasses such as Red Natal Grass (*Melinis repens*) and African Lovegrass (*Eragrostis curvula*), are also common.

### 4. Manure Management

If manure removal is impractical or infrequent, spreading manure by harrowing should be practised, in order to distribute plant nutrients and organic matter, to prevent clumpiness in pasture growth and to avoid manure being washed into waterways.

Rotational grazing greatly assists the application and effectiveness of this practice by resting areas for a period after harrowing. This allows pasture to freshen and assists in worm control.

"Harrowing" can be achieved with a piece of weldmesh or logs tied together, dragged by a vehicle or by hand.



Harrowing can be achieved with a piece of weld mesh or logs tied together.



#### Remember:

Advice on the application of guidelines in specific situations should be sought from local, professional sources to provide up to date, relevant information.