# Sustainable management for healthy equine properties

Fact Sheet series for the Small Rural Landholder



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Overgrazed pastures are the biggest cause of soil degradation, weed issues and parasite burdens in horses.

Many horse properties are designed with small paddocks that contain mostly weeds and bare, compacted soil.

The main reason for paddocks in this condition is due to over grazing and no paddock resting/rotation cycle in place.

The cycle is exacerbated because this often means animals rely on being hand fed at set intervals throughout the day and stand around causing bare ground and soil compaction, rather than moving around and grazing constantly as their digestive systems require.

#### Environmental impacts

Broadleaf pasture weeds such as capeweed. The environmental consequences of this include:

- reduced ground cover causing top soil erosion;
- reduced water quality;
- increased reliance on chemical weed control and fertiliser; and
- increased reliance on buying in feed for animals.

#### Strategies to consider

Sufficient paddock rest: this equals greater pasture diversity, ground cover and soil conservation and health, better water quality, fewer chemical inputs for weed control and soil nutrition and feed year-round for your animals.

Increasing species diversity, ground cover and feed on horse properties: this keeps the pastures ahead of stock numbers.

Height of grazing: A general rule of thumb is not to graze pastures below 5cm in height; once they are around this height it is time to move them onto new pasture (ideally between 6 -15cm height, depending on the time of year).

Species diversity: this is the key to healthy pastures. It applies to the soil micro and macrofauna and also the number of different grasses and herbs that make up the pastures.

### What can you do?

Don't necessarily focus on eradicating one type of weed – of course there are a few regionally prohibited weeds to control (e.g. Pattersons Curse, Ragwort etc.), however long term it is more profitable to focus on management to increase species diversity.



Land management focus

**Soil health:** allowing sufficient pasture rest (at least 30 days stock exclusion) and avoiding overgrazing (not allowing grazing below 5cm height). If you can still see manure lying in the paddock, it hasn't rested long enough.

Harrowing can help manure to break down more quickly, although after harrowing, paddocks will still need a minimum of 30 days before being suitable for grazing

Weed control: Aiming for greater species diversity within your pastures will reduce the potential monoculture of weeds and subsequently the amount of time and money spent trying to then eradicate one or two weed species.







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### Key management considerations

- Rest and rotate pastures as required by pastures, not as required by space for horses
- Grow pasture species and feed hay types suitable to horses (high fibre, low NSC)
- Lime and rest paddocks before chemical weed control and fertiliser application
- Encourage movement by providing a constant forage source (sufficient pastures)
- Sufficient pasture grazing and/or ad lib hay at all times prevents many problems including:
- Digestive & metabolic complaints;
- Potential physical injuries;
- Damage to pasture and infrastructure; and
- Environmental degradation and water quality decline.





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#### For general information contact:

South Gippsland Landcare Network sgln@landcare.net www.sgln.org.au

## Controlling and reducing capeweed

Capeweed commonly dominates horse properties. In small amounts Capeweed isn't a major problem, but when it dominates the paddock it needs to be brought back into control through a combination of methods.

The biggest reason for Capeweed dominance is overgrazing (causing bare, compacted soil) and insufficient resting of pastures. Control is often attempted via spraying in spring, after flower heads have appeared. Once flower heads have formed and a new seed bank has been dropped the cycle has been set for the next season of Capeweed. Early Autumn is a more effective time to target emergent plants combined with slashing in Spring to prevent flower heads from developing.

#### Soil testing

Capeweed thrives in acidic soils. An independent soil test can provide a pH status. This will determine what soil ameliorants are necessary (lime, dolomite or gypsum) prior to investment in additional fertiliser or major pasture renovations.

Soil testing and liming in Autumn allows for soil uptake prior to revaluating soil requirements in Spring. Often the addition of lime etc. can vastly reduce the need to apply additional fertiliser once the soil chemistry has become more favourable to nutrient uptake by plants.

It will almost certainly reduce the amount of broadleaf weed competition by neutralising the soil as broadleaf weeds love acidic, bare and compacted soil.

Do one paddock at a time if finances are limited, and it is almost always worth prioritising funding to soil ameliorants over herbicide for long-term benefits.

#### Rest, rotate and rest!

**Rest** your paddocks as long as required to achieve pastures 15cm in height and maximum ground cover.

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Allocate a 'sacrifice' paddock if necessary, and focus on improving other paddocks whilst you use the sacrifice paddock and feed out hay here instead.

**Delay** improving and resting this paddock until the others are in better condition. Spread out spoilt, weed-free hay over bare patches to encourage reseeding.

#### Pasture species selection:

Certain pasture species are unsuitable for horses and ponies due to their high non-structural carbohydrate (NSC) levels. These pasture species are selected to produce high-energy feed for production animals, but can quickly cause equine metabolic issues due to the differences between horse and cattle/sheep digestive systems.

Again, these risks can be minimised by encouraging conditions which promote species diversity within the soil and pasture and therefore avoiding an over-rich pasture.

For further information on appropriate pasture species for horses see the resources link below.

#### Resources

Some good starting points for appropriate pasture species for horses and ponies: http://www.calmhealthyhorses.com/grass/good grass.html

Useful information on the metabolic effects of high NSC forage in equines: http://www.safergrass.org/index.html

#### Disclaimer: South Gippsland Landcare Network (SGLN)

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