Canter For Climate

CASE STUDY

Gavin Heywood

MANILLA - NSW

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Who: Gavin Heywood, Serum Australis

Location: Manilla, NSW. (Fossickers Way 45km northwest of Tamworth)

Rainfall: 625mm/yr
Climate: Temperate (usually no dry season, hot summers, mild to cold winters)
Soil Type: Light brown to light red. Shale underneath.
Topography: Undulating

Management System
Number of Horses: up to 250
Land Area: 2,400 ha
Purpose of Ownership: production of blood, serum and antibodies

Key Topics: regenerative grazing, controlled grazing, strip grazing, adaptive grazing, high density grazing, Horses, electric fencing, pasture diversity, cover cropping.

Introduction

Gavin Heywood and his family run 200 to 250 horses on 1900 acres of their 2400 ha property near Manilla, NSW.

They are Serum Australis and their horses are used in the production of blood, serum and antibodies for use by Universities and veterinarian clinics.

For the last 12 years they have used a Regenerative (time-controlled) grazing system where the herd is moved around the property confined to relatively small paddocks with the horses at high density for short periods. Each paddock is then given long recovery time.

Everything they do is aimed ultimately at reducing their carbon footprint.

Healthy soils produce healthy pasture with high nutrient density, feeding our animals well. Well-fed animals are satisfied and healthy, resistant to disease, and their blood is also top quality. - Gavin Heywood.

Grazing Management

We were advised we probably wouldn't be able to run horses in mobs of more than about 60 because they wouldn't remain in good condition. That is not true.
- Gavin Heywood.

For 12 years they have followed the RCS (Resource Consulting Services) 6 Principles

1. Plan, monitor and manage your grazing activities
2. Give plants adequate rest to recover after grazing
3. Match your stocking rate to available carrying capacity
4. Manage livestock effectively for optimal performance
5. Use animal density as a tool for change
6. Manage for diversity of plants, animals and microbiology

The herd of 200-250 horses spends between two-thirds of a day, up to two days grazing each four to eight hectare paddock.

The aim is to have plants only bitten off once and left with enough leaf area (solar panels) to still capture their own energy from the sun. As the foliage is reduced the plant's roots are also pruned, increasing the soil's organic matter. The paddocks are then given long periods of recovery time of three to six months.

Fencing is single wire electric. Gavin found they needed to paint it white for visibility. They have used Batt-latches to open gates with a timer to allow the horses to move when no one was there.

Gavin has run horses and cattle together, but not when their herd was this large. They did find that the horses seemed to enjoy chasing calves. They are not sure how the horses would go with sheep.

When the big horse mob was introduced the pasture species were already reasonably productive because the area had previously been grazed on the same regenerative system using cattle.

Photo: The mob enjoying the cover crop species that were sown into the pasture.

The main change to the pasture from moving to horses has been the number of trees the horses have allowed to regenerate, as well as bare soil decreasing.

The high density grazing chipped the surface of the bare areas and allowed weeds like thistles to grow, and then slowly filled in with productive pasture species. This has been a slow process.

Current pasture species are red grass, paramatta grass, wire grass, warrego grass, wallaby grass, wild sorgum, native panic, tall windmill grass, barbed wire grass, silky browntop grass, native glycine legumes, native flowers and forbes, as well as all sorts of weeds that come as required to help the soil .

For around 10 years Gavin has sown summer and winter cover crops into some of the pastures. This was undertaken by a tyned combine initially, then a double disc opener was purchased.

The species used were oats with various legumes and chicory, plantain, or sorghum and millet with corn, sunflowers, lab lab, cow peas, chicory, radish, buckwheat and sunn hemp.

Horses seem to enjoy eating the multi-species cover crops we sow, especially the summer ones. - Gavin Heywood.

The horses do well in this system and maintain good body condition. However with extended dry periods supplemental feeding of pellets has been required. In 2019 full feeding was required for 11 months. This was undertaken on a small 10 hectare space, so that the overall farm was protected from overgrazing.

Key Learnings

The following are lessons learnt by Gavin and the team at Serums Australis having run 250 head of horses in one herd.

- Horses don't like coming into trough areas that are too crowded and they can be bullied, so give them lots of space. At least a seven metre distance from trough to the nearest post or fence/gate is advisable.
- If you are going to use single wire electric fences use medium, not high, tensile wire. Then if they do breach the fence it snaps much more easily without causing as much damage to either animal or fence. It is also easier to fix.
- We don't leave gates open between paddocks where the horses can get on either side of the fence and potentially go over it to get to their mates.
- Putting bends in fences is a problem with electric fencing due to horses that are following cutting the corner to get to where they see the leaders are.
- We find that using a liquid mineral dispenser in the water trough is an easy way to get them all to take minerals without the shy ones missing out because they won't use a tub with minerals in it.
- Keeping them in their friend groups for the longest periods possible lowers the long-term stress they experience and the cortisol that otherwise lowers their appetite and causes loss of condition.
- Trees seem to be left alone and allowed to sprout and grow, but there is still bark eating of White Box at certain times of the year, mostly coming into Spring.
- Weeds don't build up if grazing times are short, density is high enough, and recovery periods are long enough.

Photo: Example of an area were Gavin used animal impact to change vegetation that he wanted less of, in this case Coolatai Grass.

Conclusion

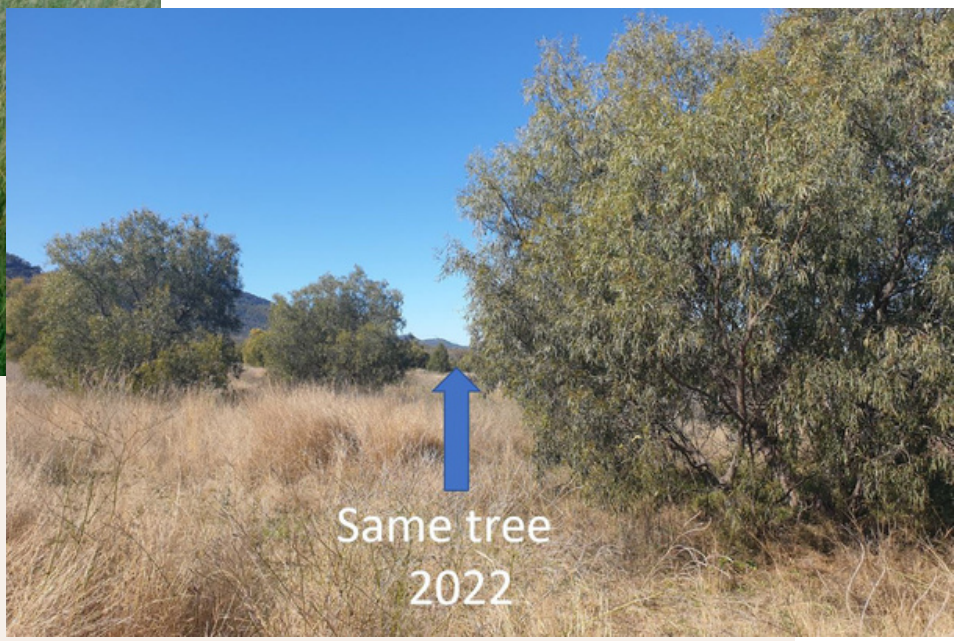
After 12 years of regenerative grazing the property's pastures have increased in productivity, improved rainfall infiltration and are more resilience to drought.

Pastures, when given enough time to fully recover, grow more biomass. This gives more litter to trample down to cover the soil and in turn slow evaporation, as well as keeping the soil warmer in cold months.

The tree re-growth in some places has been quite amazing, adding another level of wind, rain, sun and frost protection to those places, for all types of animals as well as the horses.

The horses are happy and healthy and Gavin rarely needs to drench his horses, doing so maybe once every 2-3 years.

We have made a positive impact on our land improving it for both our profitability, the health of our herd and the wildlife in the area. Also by increasing our soil carbon we are having a positive impact for everyone. - Gavin Heywood.



Further Information

- This Case Study is part of a series produced by Canter for Climate.
  Further examples can be found on our website, via this link.

- Further information on Serum Australis can be found on their website via this link