

# Why we do what we do

When we bought our property on the Bass River at Grantville over 30 years ago, we soon realised its importance as part of the only remaining riparian forest on the river. Our vegetation also provided the only link between the Grantville Flora and Fauna Reserve and the Bass. We set about ensuring that production on the farm became not only sustainable but renewable.

Self-renewing topsoil that is biologically active is essential for productive agriculture as well as a healthy environment. It is the over-riding requirement for the health of plants, animals and people. But unfortunately it's not something that's high on the radar of most farmers.

Appropriate management of soil biology in agriculture, horticulture, forestry and conservation areas is hard to find and is one of the most neglected natural resource issues in Australia. Most of our grasslands and croplands are nowhere near as healthy as they should be.

They often feature areas of bare ground, sheet and gully erosion, weeds and an almost complete lack of desirable plant species. It's an easy but gullible assumption that removing the weeds and replanting some 'better' species will solve the problems. Decades of experience have demonstrated that this simplistic approach rarely works.

The interactions between animals, plants and soil biota remain out of balance because the essential requirement of soil management has not been addressed. The consequent shortfall in ecosystem services, such as nutrient availability, results in costly (and damaging) supplements being added to the soils.

Landscapes are not degraded because they lack desirable species. The reality is that desirable species will not flourish when landscapes are degraded.

In agriculture, grazing and cropping account for most of the land use. If we can get our resource managers (and farmers) to recognise that the main focus of natural resource management needs to be to maintain high levels of humic materials to rebuild topsoil, we will see some top results. But it will require radical departures from conventional methods of production.

## Regenerative Farm Practices

The business of farming can be productive, restorative and profitable provided it: -

- regenerates, rather than merely 'sustains' the natural resource base
- enhances, rather than replaces natural ecosystem processes
- stimulates the formation, rather than attempt to reduce the loss of topsoil.

Many of what are termed 'sustainable' agricultural practices represent only small improvements in current activities. At best, they impart a fleeting tinge of green to a deteriorating landscape. 'Regenerative' practices embody fundamental redesign (Hill 1998). They utilise natural ecological services to replenish and reactivate the resource base.

When agriculture is regenerative, soils, vegetation and productivity continually improve rather than stagnate or slowly degenerate. It also improves water quality in our catchments.

Regenerative agriculture is productive and profitable. It generates a sense of personal satisfaction in farmers and rural communities. Revitalising the natural resource base gives us all hope and improves our sense of place in the environment – after all, we are part of it.

## The philosophy of enhancement

The traditional approach to land management has been to replace native vegetation with something that is 'more productive' (using exotic species and unbalanced chemical fertilisers) rather than adopting a multi-level, multispecies approach. There have been cosmetic attempts to make

oversimplified ecosystems 'sustainable'. But it is a battle which cannot be won.

Until a preventative rather than a curative approach to land management is adopted, agricultural 'problems' such as soil compaction, low fertility, weeds, pests and diseases, salinity etc, will continue indefinitely.

Why spend buckets of money every year trying to change the soil balance or structure to meet the needs of exotic plant species (such as rye grass and clover) when there are perfectly adequate native species (such as *miocrolaena stipoides*) which thrive in low ph soils and out-perform the exotics in dry years.

The more components in an ecosystem, the greater the synergy between them. Improving the diversity and health of agricultural landscapes means we need to think creatively and change the way we have chosen to do things. Why continue trying to replace natural biological processes with expensive technology, synthetic fertilisers, cocktails of chemicals and genetically modified species?

For some, it is difficult to step off the replacement treadmill, because nutrient acquisition and distribution no longer occur naturally in dysfunctional soils. However, production costs spiral inexorably upwards for as long as the replacement philosophy endures – and agriculture in Australia and many other parts of the world becomes increasingly unviable.

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If you need more information about native grasses and regenerative agricultural practices have a look at the work by Dr Christine Jones. <http://renewablesoil.com/dr-christine-jones.html>