

### **Why Ecoganic is more than regenerative agriculture**

For many farmers, the notion of trying to “farm sustainably” won’t cut it anymore - they feel we need to go beyond sustaining, to creating agricultural systems that actively regenerate the land we rely on. According to the United Nations Development Programme, 12 million hectares of global land are lost each year to degradation and, in the European Union, up to 70% of soils are degraded due to unsustainable management.

Soil degradation affects the quality and quantity of food available and impacts the ecological function of the land. Many conventional farming methods damage and destroy soil health and are also causing wider social and ecological harm. Over reliance on synthetic chemicals and fertilisers not only destroy the soil ecosystem but lead to excess nutrient run-off and create ‘dead zones’ in our oceans.

Eventually this type of farming also promotes more pest and disease problems when pests begin to build a chemical resistance to man-made products.

Forward thinking farmers are realising they need to make a change, and *instead of sustaining the broken, are actively making an effort to improve things. It is time to regenerate.*

### **Why was Ecoganic created - Ecosystem restoration?**

Regenerative agriculture doesn’t have one definition. There are **no** fixed rules about how to do it or exactly what we should try to achieve.

This **does** mean that regenerative farmers have the freedom to respond best to their individual situation as each farm has a unique ecosystem, and farmers need to be able to make the best decision for their individual situation. **But**, it also creates an environment ripe for vague statements with no real meaning or outcome and green washing.

**Ecoganic** on the other hand **has specific rules** as to

- how you repair soil health
- addresses whole of farm environmental change
- monitors and measures the ecosystem improvement to
- scientifically verify publically claimed outcomes
- and uses the management tools of an internationally recognised EMS called ISO14001.

### **How did we do this?**

Ecogonic employs a whole of system change. By implementing:

**Biological control** where you provide an environment so beneficial insects, fungi or nematodes can survive and keep the pest populations in balance. No you don't completely eliminate the pests, they live in balance and so they do not reach numbers that can create an economic loss to your crop.

Biocontrol is not new. In the Period 200 A.D. to 1200 A.D, the Chinese were the first to use natural enemies to control insect pests. Nests of the ant *Oecophylla smaragdina* were sold near Canton in the 3rd century for use in control of citrus insect pests such as *Tesseratoma papillosa* (Lepidoptera). The Chinese constructed Bamboo bridges to assist the ants in their movements from tree to tree.

Ants were used in 1200 A.D. for control of date palm pests in Yemen (south of Saudia Arabia). Nests were moved from surrounding hills and placed in trees.

Usefulness of ladybird beetles was recognized in control of aphids and scales in 1200 A.D

Through fortnightly entomology monitoring we have established key indicator species to assist with managing pest and disease pressures.

### **Allow native vegetation - Grasses and Weeds to return**

Most farmers using high production systems see grasses and weeds as a problem. We don't, we view them as nature's assets. Over the past 25 years we have developed the knowledge of how to integrate nature into commercial farming, allowing the ecosystem to restore by attracting native flora and fauna. In essence it is a polyculture practice but not through using cover crops or crop rotations.

Generally, the technique of using cover crops and/or crop rotation for disease management is to grow non-host plants until the pathogen in the soil dies or its population is reduced to a level that will result in negligible crop damage.

Native grasses and weeds develop extensive rooting systems that continually grow and die off.

The dead rooting systems provide a source of active organic matter to the subsoil, which in turn feeds soil organisms that are important in building soil aggregation. Soil aggregation is of special importance for high water infiltration and good soil structure.

Living roots and symbiotic microorganisms (eg mycorrhizal fungi) provide organic materials that nourish soil organisms. Earthworms and many other beneficial organisms need a

supply of organic matter to sustain their existence. Their digested materials are deposited back into soil aggregates to help stabilise them. This process contributes to creating a complex and balanced ecosystem.

Ecogonics ecology is allowing nature to create this function. Yes it is a slow process, but over last 20 years we have proven it to be profound success providing a plethora benefits for the businesses triple bottom line.

### **Natural barriers/corridors**

Connectivity and movement of Flora and Fauna is important in the process of ecology restoration.

Wildlife corridors:

- Allow the movement of birds, reptiles, mammals, frogs, invertebrates and plants to name a few.
- Provide habitat for migratory and local wildlife.
- Provide refuge for wildlife that use farming habitats such as open paddocks.
- Allow species to re-colonise.
- Are a great source of knowledge to learn more about habitat needs of wildlife.

Where ecogonic farms do not abut natural forest or native vegetation creating native barriers and corridors are used as a tool to support ecology restoration.