



CONCEPT PAPER

Mixed farming and holistic management

Author: Sandra O'Sullivan and Jason Virtue

Introduction

Holistic management is a value-based, decision-making framework that helps farmers, food producers, or landowners (and community) move towards a future that is financially, ecologically, and socially sound for themselves and the community around them.

The definition of 'holistic' is to treat or deal with the whole of something and not just a part. Holistic management does exactly this; optimising the use of all available resources as a way of life. Holistic management can be applied by all landowners both large or small as it is a decision-making process about management rather than scale of production. Taking a holistic approach allows farmers to work through challenges as they arise, bringing them down to a manageable level reducing financial, ecological and social risks

This paper aims to provide high level information on Holistic management including case studies for existing or potential new landowners in the Noosa Shire Hinterland as part of the Noosa Rural Enterprise Plan.

Rationale

The Holistic management decision-making process is an internationally tried tested process. In the planning process an individual's short-term and long-term goals are carefully considered, key questions are answered, and a risk management strategy is devised to help deal with issues when they arise.

Farming holistically can help deliver the following benefits:

- more productive land
- enhanced profits
- reduced input costs
- reduced business risks
- improved soil quality
- improved water infiltration of rainfall into the soil thus lessening the effect of drought
- prevention of creek erosion
- improved wildlife habitat
- improved personal livelihood and healthier, happier communities.

What has worked?

Holistic management is popular in US and Africa and now increasingly in Australia, where large areas have been transformed from degraded landscapes into permanently regenerating ecosystems.

Since the 1960's Allan Savory has been the pioneer for holistic management. Allan Savory is a Zimbabwean born biologist and farmer. His work in Africa has transformed once productive (then degraded) grass and savannah lands from desert-like conditions into fully regenerated grasslands. As a young biologist, Allan saw firsthand that the issues of land desertification and soil erosion were due to how livestock were managed by humans. He devised a simple method for livestock management which considered both animal grazing and animal impact. His methods simply mimicked the vast wild grazing herds of Africa and the predator-prey relationship.

As part of holistic management, planned grazing of livestock is a practice of charting grazing moves to plan plant recovery by considering the time a plant has been exposed to a grazing animal. The bunching of livestock into a single cohesive herd in a limited portion of land encourages the grazing animals to graze on all of the available food sources and reduces grazing selectivity. When grazing is complete the livestock are herded to a new area and the original area is left to recover and replenish. Grass requires regular defoliation to remain healthy. Allowing a grass plant to recover after a defoliation event and then defoliating it again after recovery is what creates both healthy soil and healthy plants. The periodic defoliating of the plant combined with the animal impact causes the plants to grow again. The active, healthy plants pull the carbon from the atmosphere into the soil as nature intended. This photosynthetic activity is crucial for healthy soils, plants and livestock.

There is [resounding scientific evidence](#) supporting Holistic Management, in particular with improved grazing the soil's ability to sequester or store carbon greatly improves. Holistic management has helped thousands of farmers and landowners create more healthy soil. A leading researcher, Dr Richard Teague from Texas A&M AgriLife, has compared land where holistic grazing has been carried out with neighbouring land where it was not. The results showed on average that holistically grazed lands added three tonnes of carbon per hectare per year more than the neighbouring lands. This was an increase of 30 per cent in soil carbon storage.

This type of planned grazing is a paradigm shift in modern day agriculture where livestock are traditionally free to roam very large areas of land or set stocked on small areas. This shift in thinking could be seen as a challenge by some and possibly an increase in work load. However with proper planning, and once smaller areas are established, the workload decreases due to improved soil quality, pasture composition, and livestock resulting in enhanced profits.

Case study: Holistic mixed farming at Bunya Grove Produce

In 2016, Mick and Kylie Carr formed **Bunya Grove Produce** to supply families and individuals with nutrient dense, ethically raised food. The farm is located in the Mary Valley just outside Amamoor, 57 kilometres from Noosa.

Mick and Kylie first began raising beef on 85 hectares in 2011. Subsequently they expanded their farm by an additional 77 hectares to include a 11,000 tree persimmon orchard which produces two varieties of persimmon. Bunya Grove Produce also produces beef, pastured free range pork, pastured free range chickens, free range eggs, and free-range duck eggs. The farm is managed holistically and biodynamically.



The mission at Bunya Grove

Produce is 'nurturing the earth, regenerating and enriching the soil producing nutrient-rich food in a harmonious and diverse environment where all creatures prosper, supporting and educating along the way. Farming for the future!'

The Carr's first became interested in holistic management in 2013 when they read about a decision-making process that looks at the 'whole' not just individual parts. Initially Kylie attended a two-day introductory workshop on holistic management, followed by series of further workshops. Kylie then went on to complete a holistic management course through TAFE. The Carr's were looking for a better way to farm sustainably and be more profitable.

Mick and Kylie started farming holistically by combining all their cattle into a single herd. They started their planned grazing strategy by charting all paddock grazing throughout the year. The cattle are moved as a single herd to fresh pasture several times a week, depending on seasonal growth. After the cattle have been moved out of a paddock to a new area, the pigs are then moved in to further work the soil in the original paddock. Eventually the flock of laying hens move in. Each flock have their own custom-built hen house, which are moved weekly to spread manure into the pasture to improve the soil quality, thus helping to regenerate the land. At Bunya Grove Produce all animals are utilised to improve the quality of the land.

With this way of mixed farming, the Carr's have seen great improvement in their soil, pasture and animals. Using conventional farming practices they would be able to run 60 to 70 head of cattle on their original property of 85 hectares. Now they have 170 head of cattle plus the additional animals.

Their advice for anyone intending to start on holistic management is to find a great mentor, who is knowledgeable in the area and can provide support in the decision-making process.

They also advise to plan, monitor, and replan to align decisions with your goals and overall mission.

Bunya Grove Produce can be purchased at Noosa Farmers Markets, Kin Kin General Store, Amamoor Store, Wright Cut Meats Cooroy, and directly from the farm (www.bunyagroveproduce.com.au).

Case study: Holistic mixed farming

Noel and Debbie Granshaw run a beef cattle farm in Mooloo in the Gympie Region. In 2008, they started with a 55-hectare farm. The original farmer grew beans and then ginger. When the Granshaw's took over, they began the hard work and planning needed to restore the depleted pasture. Their successful results meant that in 2015 they were able to expand the farm by another 80 hectares by purchasing the adjacent property. Predominately the farm specialises in 'backgrounding,' which is raising cattle from six months to two years old (depending on weight) before on-selling for the local beef market.

Noel is highly passionate about holistic management. He has attended holistic management training and cites Allan Savory as his hero. Noel's first step in restoring the land was to map the farm and his second was to look at the available water supply system. Next Noel divided the original larger paddocks into smaller areas using string (electric) fencing. He keeps the cattle in a single herd to graze in a single smaller area before moving them on to the next area and leaving the original area to rest completely. He decides when to move the cattle based on his visual assessment of the grazing area.

Since 2014, Noel has been applying this high-density grazing strategy with great success. The main benefits he has experienced have been an increase in carrying capacity by 50 percent, reduction in chemical inputs, healthier cattle with significant reduction in tick levels, overall improvement in land quality and pasture composition, and no pasture dieback, which is a serious issue experienced throughout Queensland.

For those thinking of starting holistic management, Noel emphasizes how crucial it is to have an overall plan and long-term strategy. Noel's advice is to firstly map your farm and know what you are dealing with so you can lay solid foundations for successful future paddock management.

Further Information

Allan Savory Institute - <https://www.savory.global/>

Holistic Management International - <https://holisticmanagement.org/>

Allan Savory: Land transformations can be seen in his 2013 TED talk:

(https://www.ted.com/talks/allan_savory_how_to_green_the_world_s_deserts_and_reverse_climate_change)

Polyface Farms (Joel Salatin) - <http://www.polyfacefarms.com/>

Dr Richard Teague - <https://vernon.tamu.edu/research-project/grazing-ecology-management/>
<http://fergusonfoundation.org/wp-content/uploads/2017/02/StevenApfelbaum-DiggingDeeper.pdf>

Holistic Management Training

In South East Queensland, **Jason Virtue** is an educator of holistic management and is accredited with the Allan Savory Institute and Holistic Management International. Jason provides mentoring and customised one on one training for individuals, families and tailored workshops for groups and small-scale food producers <https://www.landlifeeducation.com.au/>

Jason can be contacted on 0427 199 766 or jason@landlifeeducation.com.au

For further information on Holistic Management in North Queensland, NQ Dry Tropics Project the Table Top Case Study <https://www.youtube.com/watch?v=yjMaDGv7otw>

Improving Soil Carbon study by World Bank and Arizona State University

Soil Carbon Cowboys <https://vimeo.com/80518559>