REGIONAL STEWARDSHIP STORIES

Healthy Land & Water Stewardship report

SUSTAINABLE AGRICULTURE

Sustainable agriculture- a win-win for productivity and catchment health

South East Queensland produces a substantial portion of Queensland's total agricultural commodities. Rural areas make up approximately 1.9 million hectares or 85% of the South East Queensland (SEQ) landscape, much of which is managed by farmers.

The protection and sustainable management of agricultural land in SEQ is important to safeguard the capacity of the region to produce food and fibre for local communities and broader markets. Given the relative area of land managed by farmers, they also play a role in the conservation and management of other natural values, including the region's waterways and rich biodiversity.

Farmers of the region are faced with many challenges in maintaining viable enterprises, including climate extremes, cost of production, profit margins, and market uncertainty. These challenges can place pressure on already stretched land and water resources.

How agricultural land in South East Queensland is managed influences the health of waterways, including the region's creeks, rivers, estuaries and coasts. In some cases, poor agricultural land management continues to threaten water security and waterway health.

The uptake of sustainable agricultural practice in the region can enhance the long-term viability of farm enterprises, supporting regional communities and, in many cases, can have positive outcomes for waterways and catchments. In South East Queensland, farmers and communities continue to realise these benefits!

What is sustainable agriculture?

A sustainable agricultural practice is one that is economically viable and enhances the environmental quality and the resource base on which agriculture depends, such as the soils, water, plants, as well as insects, such as pollinators.

Practices are specific to different types of agriculture, such as horticulture, grazing, or market gardens. These practices may be broadly known and shared between generations of farmers, while others are new innovations in response to emerging and ongoing challenges.

Implementation of sustainable agricultural practice requires vision, persistence, innovation, and often up-front and ongoing expenses.

Driving sustainable agricultural practice uptake across South East Queensland!

Many organisations and individuals contribute to sustainable agriculture practice uptake across the region, including industry groups, government, and local communities. The agricultural industry, government and Natural Resource Management organisations are actively investing to support farmers to manage land sustainably. These investments often take the form of best management practice improvement programs or capacity-building and extension activities.

- Best management practice improvement programs aim to assist landholders identify and implement improved practices to enhance enterprise sustainability and profitability.
- Capacity building activities that assist landholders through knowledge exchange and training. These programs deliver real benefits across the region.

There are many examples across the region where sustainable agriculture is producing real benefits for farm enterprises while delivering improvements in local waterways and catchment health. Examples of this include:

- Grazing land improvement through implementing best management practice.
- Managing stock to protect water security.
- Conserving soil and improving water quality.

Enhancing grazing land condition in the upper catchments

Grazing is the dominant rural land use in SEQ, utilising 51% of the land area in the region. The management of pasture and land condition are key to the productivity of graziers. In South East Queensland, land areas within mid-to-upper catchment continue to support grazing practice.

Grazing land condition is the capacity of the land to efficiently capture energy, cycle nutrients, and respond to rainfall to produce useful forage. It is a measure of how well the grazing ecosystem is functioning and directly influences the productivity of land. Maintaining and enhancing land condition improves grazing productivity and also reduces soil loss and associated threats to waterways.

The sustainable management of grazing land to enhance the health and diversity of pastures is benefiting farming enterprises across the Upper Catchment of South East Queensland. This is being supported through incentive and capacity-building programs across the region. Grazing land management is complex and highly context-specific, with different levels and types of management depending on the enterprise and land type. Sustainable grazing practices to enhance land condition may include: rotational grazing, wet season spelling, fencing riparian areas and installing off-stream watering points, or managing soil erosion.

Some stats from Healthy Land & Water's

Sustainable Agriculture programs

- The Sustainable Agriculture team at Healthy Land & Water has been working with graziers across the region to build their capacity to manage agricultural land. Activities include property management planning workshops and field days and information sessions.
- Since 2019 over 1500 landholders have been engaged in capacity building and training activities across, soil health, soil erosion management, native vegetation management and climate adaptation. As a result of participation in these programs landholders have significantly increased their understanding and skills across a range of areas (See State of Stewardship Report).

Grazing best management practices programs

- The Sustainable Agriculture team at Healthy Land and Water have been working with graziers across the region to implement grazing best-management practices.
- From 2019, over 1500 hectares has been added to the total land area under best-management practice improvement programs.

Managing riparian areas to protect water security

Watering cattle can be a challenge in areas with variable rainfall and limited access to surface water. Allowing stock access to creeks is a cheap way to water stock; however, the direct access of stock to creeks can negatively impact freshwater stream health and water quality for drinking water supply.

Fencing creeks and/or providing off-stream watering points, and stock bridges can reduce the negative impacts to waterways and provide reliable good-quality water to the stock. This requires up-front capital cost, and these assets require regular maintenance. Recognising the shared benefit of managing stock access to creeks, many graziers are implementing these practices through a range of incentive programs.

The Source Water Protection Partnerships program, delivered by Seqwater and Natural Resource Management organisations, aims to work with landholders and farmers to improve water quality in the water supply catchment. A key focus of this program is working with graziers to manage direct stock access to creeks. This is resulting in improvements to freshwater stream health and reducing water quality risks to drinking water sources.

Farmers working to conserve soil and improve water quality

Minimising the impact of farming practices on water quality is critical to conserving South East Queensland freshwater, estuarine and marine ecosystems. Farming practices can negatively impact the water quality of creeks and rivers, through excessive chemical and fertiliser use as well as land management practices that disturb soil and release fine sediment to waterways. Many farmers across the region are taking up the challenge of reducing their impact on waterways through improved practices, whether it is pineapple growers in the Pumicestone catchment or graziers and hobby farmers in the Noosa catchment.

Working with landholders to improve water quality in Kin Kin

Erosion and soil losses from the Kin Kin catchment are impacting water quality of the Noosa River, threatening its overall ecosystem health. Landholders and farmers within the Kin Kin catchment are working to improve land condition and river health.

The Keeping It in Kin Kin (KIKK) program is an initiative delivered by Noosa and District Landcare, in collaboration with the community to rehabilitate the Kin Kin catchment. The program is delivering extension services to landholders to support sustainable agricultural practice, with a focus on pasture management.

The soils of the area are highly susceptible to erosion. Managing pastures through rotational grazing and sustainable stocking rates can maintain improved land condition, supporting continued production while protecting the water quality of local creeks and the Noosa River.

The program also delivers on-ground works in partnership with landholders and farmers. These include planting rainforest species in riparian areas, controlling vine weeds, installing stock exclusion fencing along waterways, as well as managing gully and hillslope erosion. Since 2019, the program has delivered 59 projects across 38 properties and over 12 workshops and field days with more than 400 participants.

On-ground achievements of the program include:

- More than 5 km of riparian restoration.
- More than 16 ha of revegetation.
- Approximately 30,000 trees planted.
- Treatment of more than 30 ha of weeds.
- Approximately 4 km of stock exclusion fencing and two off stream watering points.

Learning from success

The uptake of sustainable agricultural practice in the region is benefiting farming enterprises and resulting in a material benefit to waterway health and security in many areas. Understanding the breadth of collective effort underway in the region to adopt sustainable agricultural practices and the relative success of these efforts, can help identify gaps and improve future practice.