

Case Study January 2024

SWEET SUCCESS

Major Grants helps Sandiford grower Jeff Grech improve soil health, water quality, and production.

Sandiford grower Jeff Grech is enthusiastic about his new minimal till adjustable three row billet planter. Jeff was able to purchase the planter with assistance from the Major Grants Project under the Mackay Whitsunday Water Quality Program, funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation. Using the new planter, he minimises field traffic by simultaneously planting three rows directly into his knocked down legume fallow on permanent beds, reducing excessive land cultivation and compaction. This gentle approach to soil management enhances soil health by promoting better infiltration and minimising disruption to soil microbes. Additionally, it lowers the risk of erosion, contributing to improved water quality around the farm.

Looking back

The Sandiford farm was established by Jeff's father in 1963 after relocating from the Habana area. Jeff now leads custodianship of the farm and has a deep ambition to pass it on to his son. Jeff vividly recalls his father toiling to manually cut the sugarcane – a stark contrast to the modern evolution of farm practices since then.

Reflecting on his father's teachings, Jeff says there are a lot of things you cannot control such as the weather, mill performance, and market conditions. He follows his father's advice to always focus on the things you can control, which, for him, is using the best practices to grow the best sugarcane possible.

Over the years the farm faced significant erosion due to extensive land cultivation, prompting concerns about sustainability. To address this, green cane harvesting was implemented resulting in an immediate reduction in erosion. The transition to 100% green cane harvesting was swift, transforming once-eroded drains into grass-covered areas devoid of any signs of erosion. This marked the beginning of Landholder: Jeff Grech - Sandiford, Qld Tonnes of Cane: 36,000 tonnes Project: Major Grants Program: Mackay Whitsunday Water Quality Program

their journey which continues to evolve in a positive direction. Jeff is passionate about growing sugarcane and improving the soil and water quality so the next generation can farm this land successfully and sustainably.

Current practices

In 2023, weather conditions forced Jeff to change his harvesting plan with some paddocks being too wet for their planned early harvest. As a result, he had to leave one paddock unused in mid-winter because of the excessive moisture. Despite the challenges of growing a soy fallow crop in winter, Jeff decided to try it out and proceeded with the planting. While irrigation was necessary, the soy crop has thrived and will be incorporated into the soil in early 2024.

Jeff plans to replace the soy with a sun hemp fallow crop before planting sugarcane in April. He will then use his new three row billet planter to plant directly into permanent beds.



The soy fallow crop will continue to break down releasing nitrogen into the soil







Great Barrier Reef Foundation





The Major Grants project is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation. The aim is to use raised beds for planting soybeans, followed by targeted bed renovation with a multi-ribbed cultivator, reducing soil disturbance and traffic. The double disc opener on the new planter, which will go through soybean stubble, can plant uniform depth throughout the paddock despite changes in the soil type and moisture levels.

The soybean will continue to break down releasing nitrogen into the soil as the sugarcane begins to grow. The combination of having two fallow crops fixes nitrogen, improves soil health, and reduces traffic and tillage. As a result, Jeff will be able to produce a better crop of sugarcane. An additional benefit is a reduction of chemical use as the legumes have reduced weeds while less till has prevented seeds coming to the surface to germinate.

Access to Major Grants has given Jeff the confidence to adopt usage of the three row larger planter. It provides the opportunity to plant when soil moisture and temperature is optimal in April. This planter allows Jeff to plant 10ha/day and complete planting during this short window. Once the cane is planted, herbicide is applied immediately to control unwanted grass. Jeff says he won't touch that soil for another two months, believing that less is better and the right timing is key. He says being able to plant early gives him an extra 30 tonnes/ha of cane.



While Jeff believes they get it right most of the time, there are always hiccups along the way. He is, however, confident profits will be up. The new planter has helped with a strong strike rate and although he was a bit nervous with the changes, he is confident these new practices are benefiting the farm and improving production. If the season goes well, he expects at the very least, 110 tonnes/ha on average across the farm.



" The more you do it right, the easier it gets and the more you get it right." - Jeff Grech

Looking to the future

Jeff is hoping to have 100% of his farm working under this controlled traffic model in the near future. He aims to continue improvements, adopting best practices as they emerge. With his son returning to the area and joining him on the property, he has been reinvigorated and is excited to continue the journey.

Jeff's thoughts on land and water quality:

Jeff considers himself a steward of the land he lives on and believes that it is a privilege to be able to live and work here. He not only loves his farm, but also loves going out to the Great Barrier Reef and wants to protect it for future generations. If nutrients or chemicals applied on his farm end up at the Reef then he sees it as a problem. Jeff wants those inputs to stay on his farm to improve the sugarcane crop.



" If there is something I am doing on my farm that is hurting the Reef, then it is also hurting my farm." - Jeff Grech

Advice to others:

Jeff credits the growers living in his area as inspiration for trying new things. He says the growers around him are great at what they do. They feed off each other's ideas and are constantly asking questions to learn from each other every day.

Jeff's advice to those just starting the journey of adopting newer practices is to speak to your productivity services officers. He laughingly comments that he has Mackay Area Productivity Services (MAPS) on speed dial! Anytime he sees something that isn't quite right or needs some help, they arrange a visit, to advise on what to do. Jeff encourages other growers to engage in these types of grant programs to "get that one thing to make your farming practice just a little bit better." He reflects that the grant process was so easy with the help of MAPS.