



Lower Burdekin cane grower Steve Pilla (pictured left) has adopted automated irrigation systems through the Burdekin Irrigation Project. Pictured here with SRA Burdekin District Manager Terry Granshaw.



Bryan Granshaw from the Rock's Farming Company with some of the automated irrigation technology the company has installed as part of the BIP.

LASTING LEGACY OF THE BIP IN THE LOWER BURDEKIN

When the Burdekin Irrigation Project (BIP) was initiated three years ago, its objective was to support Lower Burdekin sugarcane farmers to transition to more efficient irrigation systems and practices.

As the project draws to a close in June 2024, it's clear the BIP will leave a legacy of delivering so much more.

By assisting farmers to install smart irrigation technology tailored to farm constraints and objectives, growers taking part in the project have been able to reduce on-farm water usage and energy costs, run-off and deep drainage losses, resulting in improved productivity and profitability, and environmental co-benefits.

Sugar Research Australia (SRA) District Manager Burdekin Terry Granshaw said practice changes undertaken as part of the SRA-led BIP would have long-term sustainability impacts for growers, as well as the environment. However, there was more work to be done.

"Using experts in their fields to guide growers and installing smart irrigation tools to make informed decisions based off actual data will create a lasting legacy. But we have only just started," Mr Granshaw said.

"The number of growers participating is very encouraging and shows that there is scope for similar projects beyond the BIP. The diversity of the size of farms participating with different soil types, infrastructure

and irrigation practices and constraints has also been a highlight of the project.

"And, successful demonstration sites around the district gives growers confidence that changes that are made, on farm, are proven and tested."

More than 70 growers have so far participated in the BIP over three rounds capturing expressions of interest in the project.

Participants can choose to work with one of three delivery partners: AgriTech Solutions, Burdekin Productivity Services or Farmacist – connecting one-on-one to tailor smart irrigation systems to suit each grower's requirements.

SRA Environmental Sustainability Scientist Dr Simon Clarke said one of the major reasons for the project's success, was the ability to adapt to growers' individual farm needs.

"The BIP has exceeded expectations in terms of interest in automating irrigation systems," Dr Clarke said.

"Project activities have ranged from the assessment of system performance through to installing end of row sensors, so automated setups can switch between sets.

"We've seen lots of interest in using automation to help with the task of irrigating, as well as increasing flow

rates. Automation helps achieve the more frequent and precise set changes needed to match water volumes with crop requirements whilst reducing deep drainage and run off," he said.

The BIP was designed to contribute to the Reef Trust Partnership Lower Burdekin Regional Plan. The BIP has a target of reducing dissolved inorganic nitrogen at the end of catchment by 19.3 tonnes per year, representing 40% of the regional plan.

Dr Clarke said the work of the BIP would continue through other projects.

"In the Burdekin, the Burdekin Smart Irrigation Project will continue BIP activities after the project formerly closes, and conversations have begun on how the BIP consortium can deliver productivity and environmental outcomes in future projects," he said.

"I think the BIP will be the first in a series of similar projects taking place across other irrigated cane production regions."

The Burdekin Irrigation Project is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation with support from Sugar Research Australia, Farmacist, AgriTech Solutions, Burdekin Productivity Services, Burdekin Bowen Irrigated Floodplain Management Advisory Committee, NQ Dry Tropics, James Cook University and the Queensland Department of Agriculture and Fisheries.



Great Barrier Reef Foundation