

ELEVATED EFFICIENCY

Major Grants Program Gives a Boost to Sugarcane Grower, Paul Dray by assisting in the purchase of a high rise spray tractor

Paul Dray, a grower in Proserpine, is thrilled to have acquired a high-rise spray tractor that will grant him flexibility in the timing of his herbicide application. This flexibility enables him to use less harmful herbicides (knockdowns) reducing his reliance on residual herbicides.

Paul was able to make the purchase assisted by Reef Catchments through the Major Grants Project under the Mackay Whitsunday Water Quality Program (MWWQP). The MWWQP is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation.

Background

Paul's family has deep roots in the Proserpine region, with the farm's history spanning three generations and more than 100 years. The farm is more than just a business; it's a legacy that Paul and his entire family are committed to preserving.

For Paul, this farm is a genuine family enterprise, with multiple generations actively participating. His parents, brothers, uncles, cousins, and now his son all play integral roles in running the operation. If you spend even a short time on the farm with Paul, you will notice there is always someone from the family stopping by to check in.



Grower Paul Dray and his new high-rise spray tractor.

SNAPSHOT

Paul's investment in the high-rise spray tractor has brought significant benefits to the farm:

- **Increased Control:** Paul can now spray when needed, without waiting for contractors, ensuring timeliness.
- **Reduced Environmental Impact:** The precise spray technology minimises runoff and allows for alternative chemicals (knockdowns) to be used reducing the risk of chemicals reaching and persisting in local waterways.
- **Improved Crop Quality:** Timely and accurate spraying has led to cleaner fields and better cane.
- **Cost Effectiveness:** By reducing contractor costs and losses due to runoff or drift, the farm operates more efficiently.



The Challenge

Timing is critical when it comes to weed spraying. If the cane grows too tall, traditional spray rigs can't navigate through the crop. As a result, Paul had two options: he could use residual herbicides before the cane grew too tall, or he could hire contractors with high-rise spray tractors. However, these contractors were often delayed or unavailable because of scheduling conflicts. Although Paul hired drones to spray for vines, this solution didn't address the problem with grasses, which continued to grow unchecked as the cane got taller. This led to higher labour costs and reduced crop quality, as weed management was not effective.

The Solution

To improve his farm's pesticide management, Paul opted to work with agronomists at Farmacist. They developed a pesticide management plan that recommended alternative chemicals to reduce the risk of chemicals running off into waterways and persisting in the environment. The plan decreased the dependence on residual herbicides and encouraged greater use of knockdown herbicides.

A key part of the plan involved Paul's investment in a John Deere high-rise spray tractor. This advanced piece of equipment provided him with the flexibility to spray when needed, without having to rely on external contractors. The high-rise design was essential in being able to adopt the management plan put forth by Farmacist. They advised Paul on the best nozzles to use with his new sprayer, minimising chemical drift and will continue to support Paul with the management plan that has been given to him.

The new spray tractor also came with innovative technology that improved efficiency and precision. It has integrated GPS that automatically adjusts spray rates based on the tractor's speed, reducing waste and overlap. Additionally, the built-in weather station monitors weather conditions during spraying, preventing the process if the wind was too strong, thereby minimising drift. The cloud connectivity feature automatically uploads all spraying data, including weather information, to a cloud platform, streamlining record-keeping and reducing paperwork for Paul.

With Farmacist's expert guidance and the high-rise spray tractor's advanced capabilities, Paul was able to implement a more efficient and environmentally friendly pesticide management strategy.



Commitment to Water Quality

Paul is dedicated to sustainable farming practices and works closely with Farmacist not only regarding his pesticide management but also for conducting soil tests, managing Nitrogen & Phosphorus budgets and selecting fertilisers and chemical sprays. By doing this, he is able ensure that he is using the right amount of inputs needed for his crop at the right time. This reflects Paul's commitment to leaving the farm in great shape for future generations and reducing the risk of farm inputs ending up in local waterways.

Paul's farm is a prime example of how innovation and sustainability can work together. By accepting support from agronomists, adopting advanced technology and investing in high-quality equipment, Paul has improved his farm's efficiency and demonstrated a commitment to improving his practices on farm.



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.



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