

Case Study

Tasmanian Potato Grower

Location:	Meander Valley, Tasmania
Case Study Period:	2018 to present
Crop:	Potatoes

This case study documents The Bactivate 5 Program, its application and results at a successful potato grower based in the Meander Valley, Tasmania. The key objectives of the study were to:

- Determine if the Bactivate 5 Program would deliver long-term economic benefit,
- Demonstrate measurable improvement to the growth of the potatoes, the quality of the soil & the increase in the overall crop yield.

The Bactivate 5 Program - Products Utilised:

- Bactivate 5 Liquid - 1L
- Bactivate BioBoost - 2.5L
- Bactivate Seaweed - 2.5L

Application method: The products were mixed together in a boom sprayer and applied as ground coverage.

Background

Using The Bactivate 5 Program, this prominent grower conducted an initial trial on his potato crop for the 2018-2019 season. Conditions for the season were as follows:

- In January 2019, there was only 10.8mm of rain in Deloraine, far below the mean of 50.3mm,
- The farmer applied 3 times the amount of water he would normally, every 7 days,
- Despite the above, the farmer still had difficulty keeping the ground moist.

Headlines - 2018-2019

- Considering the drought conditions, the farmer still managed to harvest 62 tons per Ha where many other farmers across Tasmania produced significantly lower yields of c. 50 tons per Ha,
- The field Rep for the company to whom the farmer sells, commented that the farmer's crop was one of the best in Tasmania and 'impressive' considering the prevailing conditions,
- As a result of the above results and the feedback from the Rep, the farmer decided to extend his trial of The Bactivate 5 Program to more potatoes, hemp and pasture (for his dairy farm).

Trial Application & Conditions - 2020

- Bactivate 5 Program applied to all potato crop,
- In contrast to the previous year, significant rain set new records this year,

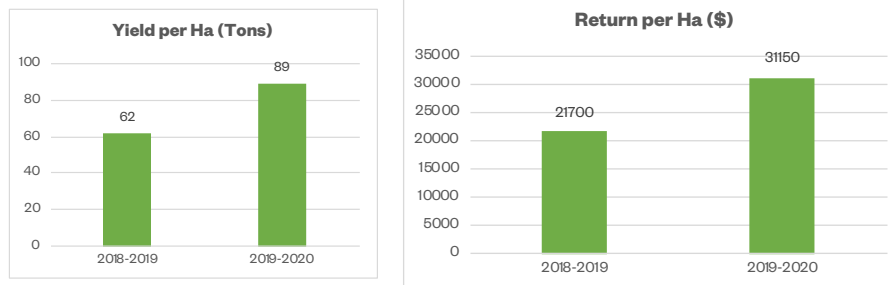


Trial Application & Conditions - 2020 cont.

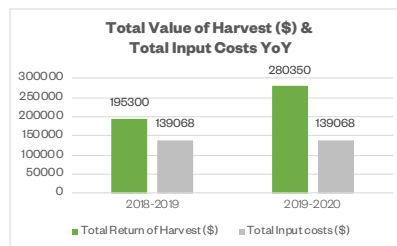
- The Meander valley received 347.8mm of rain from Jan-April 2020. The average for all previous years was 222.6mm. This provided for a challenging season for the Northern Tasmanian potato farmers,
- Water management is essential to minimise tuber problems. Maintaining a moist soil in the ridge at tuber initiation can minimise scab development. Later in the season, excessive water around the tuber encourages powdery scab and lenticel growth.

Results (Variety - Russet):

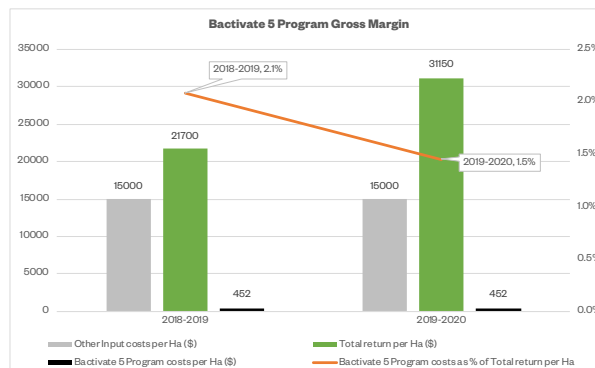
- Significant increases in return (\$), incremental revenue (\$), yield (tons), GM improvement (\$) & outstanding ROI have already far exceeded the desired objectives of this trial,
- The farmer harvested 9 Ha in May 2020 which produced an exceptional 89 tons per Ha; a 44% improvement on the prior year. The average for a good harvest (Russet Potatoes) in Tasmania is 50-60 ton per Ha which he even exceeded after only the initial program application & all in very challenging weather conditions,
- Yield & return (\$) per Ha has seen a **YoY increase of 44%**,



- In Year 1 (Y1), the cost of the Bactivate 5 Program represented a minimal 2.1% of annual return (\$), further diminishing to 1.5% in Year 2 (Y2) due to the significant yield increase in the second year,
- The Bactivate 5 Program cost represents a very small proportion of total input costs at c. 2.9%,
- Total input costs for Y1 & Y2 were constant; in Y1 they represented 71% of return, reducing to 49.6% of return in Y2



- GM (\$) in Y2 equates to \$15,698 per Ha or \$141,282k for the harvest
- ROI: Y1: 48:1, Y2: 69:1



Results - Soil improvement and farmer observations:

- As the harvester was pulling the potatoes, the field Rep and the farmer counted over 40 worms per m² behind the harvester. This was something that they had never seen prior to this harvest.
- When asked about his view so far re The Bactivate 5 Program, the farmer, who also applied the program to his dairy pasture and hemp crop, stated **“These are the best crops I’ve ever grown and I’m over \$300,000 up on previous years with some changes to fertiliser and the addition of The Bactivate 5 Program”**

For further information on this and other Bactivate case studies, please contact Bactivate Pty Ltd on sales@bactivate.com.au or by calling 1800 112 779

