

FACT SHEET

PROFIT FROM PRECISION AG - RESOURCE GUIDE

Resources to help growers and advisers make profitable decisions

This fact sheet is a Profit First PA communication product derived from 'Assessing the economic value of precision agriculture (PA) tools for grain farming businesses in the Southern Region,' funded by GRDC. Its purpose is to help navigate the project outputs and direct growers and advisers to the information most relevant to their situation.

The purpose of the project was to increase the profitability of grain growers in the southern region by:

- Providing clear processes and decision making tools to assess the economic merit of adoption of PA at an individual business level
- Increasing awareness of what PA opportunities may be profitable in their area
- Helping growers to make sound decisions when adopting PA that will benefit their bottom line

Resources from the project are available at <https://grdc.com.au/resources-and-publications/all-publications/publications/2020/profit-for-precision-agriculture/>. Here is a brief summary of what is available:

Key points

- PA can add profit to a farm business, but the benefits are situational and decision making needs to be sound
- Taking the time to be thorough and do robust numbers will pay dividends
- There are resources that can guide you through this process, as a grower or adviser
- Strategic PA applications that unlock yield potential have the largest impact on profit

Management Guideline

A management guideline was produced, *A profit first approach to PA - a step by step decision making guide for growers and advisers*. This document steps through the five step decision making process in more detail. It includes decision trees and examples to assist growers and advisers to do the economics before adoption, reinforces the message that the benefits are situational, and includes checklists on being PA ready. The final section focuses on the sound implementation of PA. This includes taking a team approach, the need for evaluation and some anecdotes of when things can go wrong.

The management guideline is aimed at growers and advisers looking to make robust decisions before investing in PA.

Case Studies

To demonstrate some examples of the economics of PA, case studies were developed for each of the following PA applications:

- Variable rate lime application
- Variable rate fertiliser application
- Optical spot spraying
- PA assisted drainage
- PA assisted soil amelioration

Each of these case studies was developed through discussion with several growers using the PA on their property, and includes anecdotes of their decision making and implementation of the PA, as well as the numbers. The economics shown are not intended to be definitive for the PA – they are included as examples of what is possible, and to demonstrate the factors to consider when doing your own numbers.

These case studies will have relevance for growers and advisers making adoption decisions for each of these five techniques.

Short Videos

A series of short videos were produced to bring the theory to life with grower stories. There is an introductory video outlining the key messages from the project, followed by four videos that are snapshots from growers. There is a story from each of the low (Tim McClelland, Birchip), medium (Leigh Fuller, Koolunga) and high (Neil Vallenge, Wickliffe) rainfall zones in the southern region, as well as a general description of the journey in PA for Victorian grower Andrew Russell.

Review of existing information

The *Summary of current information on the economic value of precision agriculture tools in the GRDC southern region* report was the first output for the project. This report examines previous work done on PA economics in Australia. It outlines thinking on how PA can contribute to profitability, using three different pathways – strategic, tactical, and flexible/reactive. It then proposes a five step process for profitable adoption of PA.

The key message from this report was that while PA has potential to add value to farm businesses, the results are very situational and will vary from farm to farm. This makes it critical to do your own numbers, and focus on the opportunity rather than the technology. It also highlighted that strategic pathways that unlock yield potential are likely to have the biggest bearing on profitability.

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More information

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