

Pasture Smarts Partner Farms – Western Victoria

DairyFeedbase is one of the dairy industry's leading applied research and innovation programs designed to revolutionise feedbase management on Australian dairy farms. A joint venture between Dairy Australia, Gardiner Dairy Foundation and Agriculture Victoria, DairyFeedbase was launched in 2018 and uses the latest technology and bioscience to significantly improve on-farm profitability. The program has the potential to see returns to the industry of \$100 million a year within 10 years.

Farmers can expect DairyFeedbase to deliver easy-to-use digital tools and real-time information to improve decision-making in the paddock and strategically allocate feed at a herd and individual cow level.

About Pasture Smarts

We all appreciate the value of pasture and can agree that it is important to manage pasture well and optimise utilisation, but we also know it's not always an easy thing to do, especially considering the increasing demands of larger properties and animals.

The Pasture Smarts project aims to create a new management framework for measuring and utilising pasture that leads to higher yields, grazed and conserved more effectively, with better management of risks, and with a goal of simplifying day-to-day management.

This project is developing tools that allow the automated assessment of pasture dry matter yield and nutritive characteristics and is packaging these to enable real-time and forecast allocation of pasture to grazing cattle. These tools build on the principles of grazing management that exist today but allow these principles to be applied in a time-efficient manner on-farm. Over the last 18 months we have been working with seven partner farms across Victoria and South Australia. We have taken extensive (over 3000) pasture cuts from these farms over that time and have tested a range of tools and produced a prototype mobile application (app) and farm dashboard.

Elly Polonowita Research Scientist



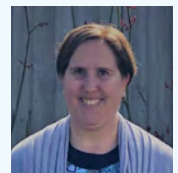
Elly graduated from the University of Melbourne in 2016 with a Bachelor of Agriculture. She started with Agriculture Victoria in Hamilton in 2017 as a Graduate Research Agronomist. She completed an 18-month agronomy development program, a joint venture between public and private sectors. In 2018 Elly joined the Pasture Smarts team. Her focus has been on using technology such as UAV mounted multispectral sensor imagery to measure yield, nutritive and persistence of pasture, at both plot and paddock scales.

Clare Leddin Research Scientist



Clare is a Research Scientist, specialising in understanding farm systems. Clare is keen to explore the benefits of emerging pasture measurement and monitoring technologies to Australian dairy farms. She has recently commenced a PhD investigating how the extra information from these technologies could be used to enhance pasture and grazing management decisions and ultimately the value this could bring to farm businesses. Clare's work on the Pasture Smarts project follows several years working in pasture-based animal production systems which has included masters research investigating the efficiency of grain supplementation in pasture-based dairying.

Kelly Rentsch Technical Officer



Kelly started with Agriculture Victoria in Warrnambool in 2005 in the Dairy Extension team as a project support officer before becoming a Technical Officer with the Dairy Research team in 2007. Kelly has since worked on several pasture projects.

Turn over for more information about the levels of participation

If you have any queries, please contact the project leader:
Dr Liz Morse-McNabb at
elizabeth.morse-mcnabb@agriculture.vic.gov.au

Pasture Smarts Partner Farms – Levels of participation

How you can help

We are looking to partner with more farms across Victoria to test that our models work and get your feedback on the prototype mobile app and dashboard. We would really appreciate access to your farm at least once to gather a set of pasture cuts and use our sensor technologies. This would provide evidence that this work can also be applied on other farms. We would also like you to test our mobile app and dashboard while providing feedback on what you like, don't like and features that you think are missing. We will set up a farm map with you, capturing all your paddocks and laneways and the current forage type of each paddock.

Project timeline

We are aiming to have our additional partner farms all mapped and ready to go by mid-April 2021. We would like these farmers to remain in the program until at least June 2022.

Phase 1

We will set up your farm map, take some field measurements and then provide you with a mobile app and dashboard customised for your farm.

You then will be provided with whole paddock estimates of pasture yield and a feed wedge to use in your day to day grazing management. You can also use the app to enter your own information. This is not essential but useful to us while we are developing the models for continued accuracy checking. If you make a major change like changing your forage mix in a paddock, then you will need to inform us.

Phase 2

Paddock spatial variability will be provided directly to your app and dashboard.

Phase 3

A forecast of pasture growth per paddock will be provided directly to your app and dashboard.

Professor Kevin Smith

Professorial Research Fellow

Kevin has extensive experience in pasture research and development. He is currently a Professorial Research Fellow at Agriculture Victoria and the University of Melbourne based in Hamilton. He has a particular interest in the development and application of new technologies in pasture measurement both in research and on-farm. As well as working in Pasture Smarts he also leads the Forage Value Index Futures Project in DairyFeedbase.



Dr Stephanie Muir

Research Scientist

Stephanie is a Research Scientist based at Agriculture Victoria's Hamilton Smartfarm Projects that Stephanie has worked on included: Forage Assemblies, integration of low methane pastures, Feed Conversion Efficiency and Maintenance Energy requirements for sheep. Stephanie is a key member of the south west Pasture Smarts on-farm data collection team.



Stewart Burch

Technical Officer

Stewie has been based at Agriculture Victoria's Warrnambool office since starting work with the department in 1996. He has worked on many dairy pasture research projects within the south-west Victoria region. Stewie's role within Pasture Smarts is to collect partner farm pasture samples and data.



If you would like additional information or an expression of interest form

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Dr Liz Morse-McNabb at
elizabeth.morse-mcnabb@agriculture.vic.gov.au
DairyFeedbase.com.au