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## Stimulating private sector extension in Australian agriculture to increase returns from R&D



This project is supported by funding from the Australian Government Department of Agriculture and Water Resources as part of its Rural R&D for Profit programme.

*Stimulating private sector extension in Australian agriculture to increase returns from R&D* (Enhancing Private Sector Roles in Ag Extension) is a three-year project to develop and test models to build the capacity of the commercial and private sector in delivering extension services to Australian farmers.

### The main aims of the project are to:

- Increase private sector engagement with the latest research and industry best practice;
- Make research more accessible to producers through a more integrated and co-operative extension system;
- Identify barriers to private sector involvement in agricultural extension;
- Stimulate growth in capability of the private sector in agricultural extension, and;
- Build stronger connections between end users and researchers.

Welcome to our sixth newsletter, which will provide you with an overview of project activities undertaken to date.

### Project milestone report approved

The 2016/17 project milestone report was recently submitted to the main project funding body, the Australian Government Department of Agriculture and Water Resources. The report has been approved and elements of the report are being utilised in project presentations to the private and public sectors. Research reports will be available on the website soon.

### Social networks - potential for growth

Social network analysis (SNA) was undertaken using survey data collected through the National Farmer and Adviser Surveys 2016. The purpose of the SNA of

both farmers and advisers is to address the Milestone requirements Output 3(b), which are:

- Undertake an analysis of the ability of social network (for three sectors over three regions) to map current capacity in agricultural extension and collaboration between private and public sectors;
- Identify what types of advisers are working with farmers in the States of Victoria, NSW and Queensland;
- Identify the main types of advisory advice and support being provided and what range of specialist advisory services is available in each of the three States.

SNA is also used to understand opportunities for collaboration between public and private sectors with respect to extension service delivery.

The report is presented in two parts – the first is focused on farmer networks and the second part focuses on adviser networks.

A key overall finding from the social network analysis is that the private sector, particularly independent consultants and product resellers have become a very important main source of information, advice and support for the dairy, sheep and cotton sectors across Victoria, NSW and Queensland.

Across the three sectors of dairy, sheep and cotton, the private sector is the main source of information,

advice and support for farmers who responded to the National Farmer Survey 2016, (70% and 72% for dairy farmers and cotton growers respectively).

In contrast, sheep farmers rely less on private sector sources (53%) and are slightly greater users of government sources (11%) compared to dairy (10%) and cotton growers (6%). Research and development information, advice and support are used as a main source by 23% of sheep farmers and 20% of cotton farmers but only 10% of dairy farmers.

Dairy farmers are the greatest users of processors as their main source of information, advice and support (10%) compared to sheep farmers (6%). No cotton grower who responded to the survey uses processors as a primary source of information, support and advice.

The least used sources of information across all three of the dairy, sheep and cotton sectors is farmer owned information or 'other' sources ('other' was not specified).

Further work is needed to understand more about why farmers and growers are using private providers of information, advice and support including how and why they enter into and retain these relationships.

Due to the consistent pattern across the three sectors of dairy, sheep and cotton in terms of their reliance on private sector independent consultants and product resellers as primary sources of information, advice and support, opportunities need to be considered that enable industries to work together to develop effective ways of engaging with the private sector.

### **Comparison between States**

Farmers in NSW have greater reliance on independent consultants and product resellers, as well as a limited but ongoing reliance on government agencies, as sources of primary information compared to their counterparts in Queensland.

Comparison of the SNA findings across the three States of Victoria, NSW and Queensland suggests that in Victorian sheep and dairy farmers have a preference for using research and development as well as independent consultants and product resellers.

Nevertheless some Victorian dairy and sheep farmers continue to rely on government as their primary source of information, support and advice. There is a moderate use of processors by dairy farmers in Victoria but only one sheep farmer identified a processor as their main source of information in Queensland.

A comparison of primary sources used by cotton growers and sheep farmers between NSW and Queensland suggests that use of research and

development sources are greater in Queensland and there is least reliance on government, processors, farmer owned or other sources in this state.

### **Adviser survey - sources of information used**

Across the three States of Victoria, NSW and Queensland, advisers reported in the National Adviser Survey 2016 that 15% use public sources as their primary source of information however 35% use private sources. A further 23% use industry sources as their primary source of information.

There was insufficient information to identify whether some sources identified by 27% of advisers were in either the public or private domain and further work is needed to better understand these sources.

There was a similar overall pattern in each of the three States that showed that the three most commonly mentioned types of advice by survey respondents (own farming clients, RDCs and technical experts) represents at least 60% of primary sources used by advisers to support their advisory practice.

### **Advice and support provided by advisers**

Victoria, NSW and Queensland each have a unique mix of advisers providing advice and support for farmers however there is greatest diversity in Victoria as well as the greatest range of specialists practicing in this State.

A similar pattern across all three States was that three types of advice (all equal, livestock production and crop production) comprise 53%, 43% and 59% for Victoria, NSW and Queensland respectively. 'Other' topics were frequently identified by adviser respondents as their main source of information but not further specified. Further work is needed to better understand what advisers mean by 'other' with respect to advice and support and what implications this has for supporting farm profitability and productivity.

### **Opportunities for collaboration**

If the use of designated information sources is used as a proxy for the trust advisers place in different sources of information and therefore an indicator of the likelihood of preferring them as collaboration partners, the data for Victoria and Queensland shows that advisers will most likely be willing to collaborate with their own private sector farming clients followed by industry RDCs (this trend is reversed in NSW).

Further, these two sources may be three times more likely to be chosen as collaboration partners' compared with public sector. The findings suggest that opportunities to collaborate with farmer owned organisations and adviser networks are currently underdeveloped but could provide important collaboration opportunities in the future.



Given the significance of the private sector as a source of information for farmers across all States and in each of the three sectors discussed, investors in RD&E need to consider what approaches are needed to ensure that independent consultants and product resellers are able to collaborate effectively with each industry as well as with the public sector.

This could require the development of new public-private partnerships.

## Expert panel - profile of Dr Mark Paine

As outlined in previous newsletters, a project expert panel has been convened to foster critical reflection throughout the project.

The expert panel diagnoses and provides comment on approaches to cross-sector extension, and on the development of models to build private sector capacity.



The panel is a “thought leadership group”, consisting of Australian and international leaders in the field of private sector roles in agricultural innovation.

This month, we introduce you to Dr Mark Paine, who is the Strategy and Investment Leader for People and Business at DairyNZ.

Dr Paine was a speaker at our annual forum in Melbourne in May 2017.

### About Dr Paine

Dr Paine’s role addresses issues of recruitment, employment relationships, leadership and career development in the dairy industry.

He oversees the strategy and investment in dairy extension, education and training (from apprenticeships through to post graduate scholarships). He also covers the development of resources for farm business management.

Dr Paine was formerly the Dairy Australia Principal Research Fellow (Innovation and Change Management) at the University of Melbourne.

His research investigated how farmers make decisions with a particular interest in improving information services.

This required an understanding of ways to improve the way agricultural researchers and farmers worked together.

It also required an appreciation of the learning processes that farmers use when adapting their management practices.

Dr Paine has formed strong working partnerships with advisers and rural professionals to conduct his research using a co- development approach. He also received the APEN Award for Extension Excellence in 2007.

His PhD research (Wageningen University, The Netherlands) investigated innovation in the New Zealand dairy industry.

### Why did you get involved in the project expert panel?

Improving the connect between extension and the private sector is important in NZ too. We are interested in learning from Australian and European experiences while contributing what we are discovering from our programmes in NZ.

### What do you hope to achieve?

Higher performing programmes of support for dairy farming businesses in NZ. The challenges here include operating with more stringent environmental policies and greater scrutiny of farming practices by consumers and the public.

These challenges are being encountered while greater milk price volatility hits the dairy farming business. It is a time when farmers need all the help they can access to fully utilise management and information technology solutions.

This is a fertile domain for extension and private sector partnerships to provide complementary support to dairy farmers.

### What’s your approach to being involved in projects?

Where possible I draw from past experience (research into innovation and agricultural extension), including time in Australia. I also try to relate my current experience with projects in NZ (where relevant) to the trials and studies reported in this project.

The expert panel is exactly that, so we try to operate as a team, building off the comments and critiques from other panel members to assist the working group. Feedback tends to signal what is going well, where valuable insights are emerging and where changes might be required or new approaches could be considered.

## Update on Trial 2: Digital Agriculture

This trial is addressing the issues of capacity building and engagement of the private advisory sector with digital agricultural technologies and services. The RDC lead is Cotton RDC with Sugar Research Australia Limited also heavily involved.

This trial has now well into its implementation phase with two key engagement activities occurring:

a Scoping Meeting in March in Toowoomba and most recently, a two-day Review team workshop in Toowoomba on 14 and 15 August.

In the lead-up to the workshop in Toowoomba, the trial Project Officer, Vivienne McCollum from AGK Services, spent time talking to trial participants about what could be achieved at this workshop. This fed into the workshop design and objectives.

From the initial Scoping Meeting with trial participants in March a priority issue for engaging the private sector in digital ag was identified: this was to develop a framework to assess the 'value' of digital ag tools and services to advisors' businesses.

In addressing this priority issue, we sought to invite a group of advisers — with particular interests in digital agricultural across a range of business types and sizes — to become part of a Review Team to generate this framework.

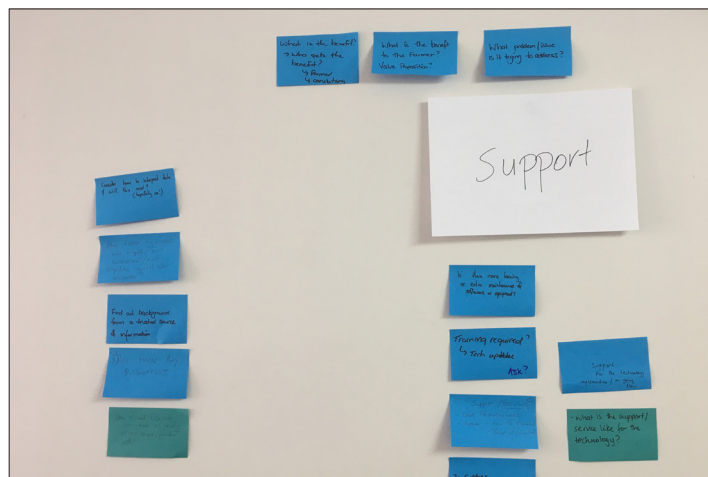
The main outcome of the workshop in August in Toowoomba was the development of a draft Assessment Framework for Digital Ag Tools and Services for use by advisers.

The purpose of the framework is to support advisers to determine the value of particular digital tools and services to their businesses. This framework takes the form of a structured self-administered questionnaire which allows advisers to identify the range of economic, social, community, environmental and social license issues related to a particular digital tool or technology.

The draft Assessment Framework will be refined and revised by the end of August and Review Team members will then use it to examine the costs and benefits of a particular digital tool or technology.

Members have chosen a range of different digital tools and technologies to test the framework with, including looking at the purchase and integration of new software into advisory practices and the value of drones for augmenting current advisory services.

The phase of trialling the Assessment Framework will take place from September to November 2017. Lessons from this will then be shared amongst trial participants in a third and final workshop in early February 2018.



**For further information, contact:**

Research Group Leader Ass Prof Ruth Nettle, Rural Innovation Research Group Lead, [ranettle@unimelb.edu.au](mailto:ranettle@unimelb.edu.au), (03) 8344 4581 or Ian Linley, Project Coordinator, Dairy Australia, [iliny@airyaustralia.com.au](mailto:iliny@airyaustralia.com.au), 0422 814 579.  
<http://rirg.fvas.unimelb.edu.au/ag-extension>

