

FARM TO PROFIT FARM BUSINESS UPDATE



Swan Hill – Wednesday 11th March 2020

*Swan Hill Town Hall Performing Arts Centre,
57 McCallum Street*

Bendigo – Thursday 12th March 2020

*All Seasons Hotel Bendigo,
171 – 183 McIvor Road*

#GRDCUpdates



2020 Swan Hill and Bendigo GRDC Farm Business Update planning committee

Belinda Cowburn ORM

Chris Dunn Nutrien Ag Solutions

Craig Farlow Elders

Jane Foster ORM

Phillip Guthrie BCG

Brad Knight GeoCommodities

Bruce Macague RCSN, Grower

Tanja Morgan MSF

Alistair Murdoch RCSN, Grower

Courtney Ramsey GRDC Grower Relations Manager

Kate Wilson GRDC Southern Regional Panel, Agrivision



GRDC Farm Business Update
proudly convened by **ORM Pty Ltd.**



46 Edward Street
PO Box 189
Bendigo VIC 3552

T 03 5441 6176
E admin@orm.com.au
W orm.com.au

CAUTION: RESEARCH ON UNREGISTERED PESTICIDE USE

Any research with unregistered pesticides or of unregistered products reported in this document does not constitute a recommendation for that particular use by the authors, the authors' organisations or the management committee. All pesticide applications must accord with the currently registered label for that particular pesticide, crop, pest and region.

DISCLAIMER - TECHNICAL

This publication has been prepared in good faith on the basis of information available at the date of publication without any independent verification. The Grains Research and Development Corporation does not guarantee or warrant the accuracy, reliability, completeness of currency of the information in this publication nor its usefulness in achieving any purpose.

Readers are responsible for assessing the relevance and accuracy of the content of this publication. The Grains Research and Development Corporation will not be liable for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on the information in this publication.

Products may be identified by proprietary or trade names to help readers identify particular types of products but this is not, and is not intended to be, an endorsement or recommendation of any product or manufacturer referred to. Other products may perform as well or better than those specifically referred to.



GRDC Farm Business Update SWAN HILL / BENDIGO



GRDC
GRAINS RESEARCH
& DEVELOPMENT
CORPORATION

Contents

Swan Hill and Bendigo program		5
A sound succession strategy could be the best investment you make	Rob Brown, <i>Peppin Consulting</i>	7
7 management practices to develop your farm employees	Sally Murfet, <i>Inspire AG</i>	13
Managing a farm team – a grower’s perspective	Lauchie Cole, <i>Woodbourn</i>	21
What is your stubble worth?	Dean Thomas, <i>CSIRO</i>	27
Is the potential profit worth the risk? Assessing your enterprise mix	Cam Nicholson, <i>Nicon Rural Services</i>	35
Integrating cropping and livestock – what works, what doesn’t? A grower’s perspective	Tim McClelland, <i>A.W. McClelland & Co.</i>	41
Precision Ag – assessing opportunities to increase your bottom line	Royce Pitchford, <i>Rural Directions Pty Ltd</i>	47
Why performance isn’t always about the outcomes	Nathan Burke, <i>Nathan Burke Consulting</i>	57
GRDC Southern Regional Panel		64
GRDC Southern Region Key Contacts		65
Acknowledgements		67
Evaluation		69



On Twitter? Follow **@GRDCSouth** and use the hashtag **#GRDCUpdates** to share key messages



Connect with us

Keep in touch with us to find out about the latest RD&E, news and events.



Newsletter
subscription



Twitter
@GRDC



Facebook
@GRDC



Instagram
thegrdc



LinkedIn
GRDC



@theGRDC

**JOIN THE
CONVERSATION**

GRDC™ PODCAST

**GET THE LATEST
INFO ON THE GO**

The GRDC's podcast series features some of the grain sector's most pre-eminent researchers, growers, advisers and industry stakeholders sharing everything from the latest seasonal issues, to ground-breaking research and trial results with on-farm application.

<https://grdc.com.au/news-and-media/audio>



To subscribe to receive newsletters and publications and keep your details up-to-date visit the GRDC subscription centre:

www.grdc.com.au/subscribe



P Level 4 | 4 National Circuit, Barton ACT 2600 | PO Box 5367, Kingston ACT 2604 T +61 2 6166 4500 F +61 2 6166 4599
E grdc@grdc.com.au @theGRDC

GRDC Farm Business Update SWAN HILL / BENDIGO



Program

9.30 am	Announcements	ORM representative
9.35 am	GRDC welcome	GRDC representative
9.45 am	A sound succession strategy could be the best investment you make	Rob Brown, <i>Peppin Consulting</i>
10.15 am	7 management practices to develop effective employees	Sally Murfet, <i>Inspire AG</i>
10.40 am	Managing a farm team – a grower’s perspective	Lauchie Cole, <i>Woodbourn</i>
10.55 am	Business and people management Q&A	Lauchie Cole, Sally Murfet & Rob Brown
11.10 am	Morning tea	
11.40 am	What is your stubble worth?	Dean Thomas, <i>CSIRO</i>
12.00 pm	Is the potential profit worth the risk? Assessing your enterprise mix	Cam Nicholson, <i>Nicon Rural Services</i>
12.20 pm	Integrated cropping and livestock – what works, what doesn’t? A grower’s perspective.	Tim McClelland <i>A.W. McClelland & Co.</i>
12.40 pm	Optimising profits Q&A	Tim McClelland, Dean Thomas & Cam Nicholson
1.00 pm	Lunch	
1.50 pm	Precision ag - assessing opportunities to increase your bottom line	Royce Pitchford, <i>Rural Directions Pty Ltd</i>
2.30 pm	Why performance isn’t always about the outcomes	Nathan Burke, <i>Nathan Burke Consulting</i>
3.10 pm	What are your take homes today?	
3.15 pm	Close and evaluation	



NEW BOOK FOR
LOW RAINFALL
GROWERS IN
AUSTRALIA

IS CTF WORTHWHILE IN THE LRZ?

This new publication addresses common questions about CTF in the LRZ, such as:

- » DO LRZ SOILS SELF-REPAIR OR IS AMELIORATION WORK NEEDED?
- » IS CTF FEASIBLE IN LOW INTENSITY SYSTEMS WITH VERY WIDE MACHINES?
- » DOES CTF REDUCE POWER AND FUEL USE IN LIGHT LRZ SOILS?
- » IS CTF COMPATIBLE WITH LIVESTOCK IN THE SYSTEM?

ON THE RIGHT TRACK

Controlled traffic in the low rainfall zone of south-eastern Australia



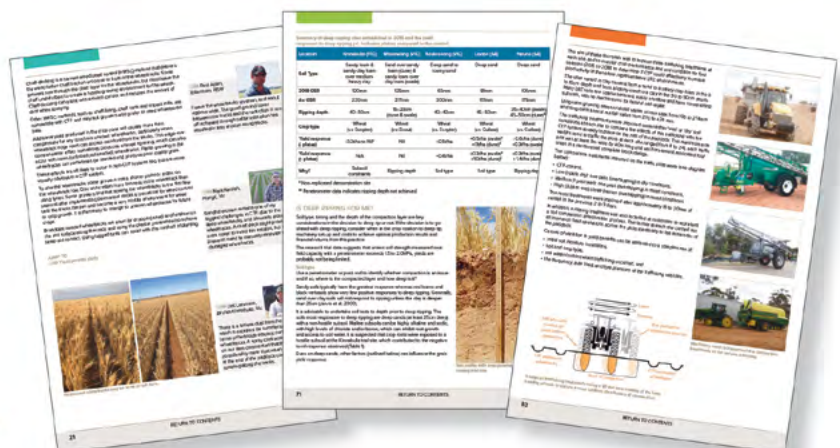
DOWNLOAD YOUR COPY OF THIS NEW RESOURCE FROM grdc.com.au or actfa.net

<http://bit.ly/LRZ-CTF>

YOU'LL FIND:

- » Practical guides
- » Grower experience
- » Research findings
- » Study investigations

all relevant to the implementation of Controlled Traffic Farming in Low Rainfall Zones



A sound succession strategy could be the best investment you make

Rob Brown

Peppin Consulting

Key Messages:

- ▶ Investing family time in developing succession skills and clarity will drive business performance and protect family relationships.
- ▶ Casual, ambiguous succession strategies too often lead to doubt, friction and fallout, EVEN if the business performs well.
- ▶ Understanding and overcoming the normal impediments is vital to the business.
- ▶ It is vital to ‘invest’ in regular and constructive family skills, wealth and succession updates.

Introduction

It's inevitable. One way or another family wealth, farms included, will transition – sometimes within the family and sometimes not; sometimes well but sadly too often, poorly managed and fraught with conflict. This presentation will overview why more and more families choose to invest family time early and consistently in family strategy updates, in order to protect and strengthen family relationships, decision making and the drivers of business performance – clarity, confidence and conviction.

The presentation will;

- Explain the key impediments to constructive family wealth discussions and how others have overcome them.
- Explain the importance of succession skills, thinking and strategy to motivate and support family long-term goals and underpin the enduring profitability of the farm business.
- Compare the likely outcomes of a transparent plan vs non-communicated plan – demonstrating the financial impact over time.
- Show how to assess and develop your own action plan to improve your family's succession culture, skill and strategies.

My follow up questions for the speaker; _____



Why it could be great for your farming business;

Implementing the messages/strategies discussed will potentially;

- Strengthen family capacity for better business decisions, performance, confidence and conviction.
- Better protect relationships by improving skills and attitudes and reducing the risk of misunderstanding and fallout.
- Provide clear opportunity for contribution and rewards for family members.

Self evaluation;

What do you need to know about succession?

How clear is your succession strategy?

Very clear _____ Very unclear

Why? _____

How satisfied are you with your succession strategy?

Very satisfied _____ Very dissatisfied

Why? _____



Do you know how satisfied other family members are with the succession strategy? YES / NO

How satisfied do you think other family members are with your succession strategy?

Very satisfied _____ Very dissatisfied

Why? _____

How would or has a clear succession strategy helped your business?

What tips would you pass on to others?



We want to work on this in our business, what should we do next?

- Assess how your feelings and thoughts about succession help.
- Use the checklist to assess your family succession strategies.
- Start carefully. Determine the communication path that demonstrates care, respect and consistency.
- Assess your adviser’s knowledge and understanding of best practice.
- Don’t just meet! Work out what’s needed to have great meeting.

Our First Action _____

Our Second Action _____




More about Rob . . .

Rob is one of a very small number of specialist, experienced and qualified advisers in the family farm succession and strategy space. Rob is an accredited family business adviser with over 30 years experience and qualifications in business, psychology and financial planning. The combination allows Rob to assist clients communicate, assess and choose the strategies that suit their family. Rob’s team services clients across Eastern Australia from Deniliquin and Melbourne.

Contact details

Rob Brown
130-136 End Street, Deniliquin
03 58811866
rob.brown@peppin.com.au
www.peppinplanners.com.au

 [Return to contents](#)



Notes





GRDC™

GRAINS RESEARCH
& DEVELOPMENT
CORPORATION






Farming the Business

Sowing for your future

The GRDC's **Farming the Business** manual is for farmers and advisers to improve their farm business management skills.

It is segmented into three modules to address the following critical questions:

-  **Module 1:** What do I need to know about business to manage my farm business successfully?
-  **Module 2:** Where is my business now and where do I want it to be?
-  **Module 3:** How do I take my business to the next level?

The **Farming the Business** manual is available as:

- **Hard copy** – Freephone **1800 11 00 44** and quote Order Code: GRDC873
There is a postage and handling charge of \$10.00. Limited copies available.
- **PDF** – Downloadable from the GRDC website – www.grdc.com.au/FarmingTheBusiness
or
- **eBook** – Go to www.grdc.com.au/FarmingTheBusinessBook for the Apple iTunes bookstore, and download the three modules and sync the eBooks to your iPad.



7 management practices to develop effective employees

Sally Murfet

Inspire Ag

Key Messages:

- ▶ Best practice HR management systems and processes practice will support you to manage the people component of your business.
- ▶ Providing an environment where employees are happy to bring their whole selves to work, not just the part that makes you money, will lead to more effective and efficient workforces.
- ▶ Employee engagement will help to retain talent to your business, and if done well, will make your business more profitable.

Labour shortages



Where will we find our workforces?



85 million shortage in 2020



1.8 million shortage by 2025

INSPIRE AG - POWERING AGRI PEOPLE

Figure 1. Labour overview.

Introduction

Farming is changing due to advances in science, technology and automation. This change is also changing the modern employment relationship.

Traditionally there was only one contract between an employee and an employer (employment contract) and was based on an exchange time for money. However, modern employment relationships are founded on three contracts – employment, social and psychological.

Industry employers of choice are recognising the need to move away from the 'carrot and stick' approach to managing employees to increase productivity, performance and profit through people.



This presentation will cover:

- What are the key best practice HR management systems and processes practice for agricultural employers to utilise?
- Explore the practices and strategies for creating an environment for employees to be efficient and effective in their roles.
- How to engage employees to increase retention, employee morale and improve the quality of work outputs.

Our partnership with people has never been more critical. Recognising that ‘people are the power of agriculture’ is essential for ensuring that the sector is able to attract, develop and retain talent to meet business objectives.

My follow up questions for the speaker; _____

Why it could be great for your farming business

Implementing the messages/strategies discussed will potentially;

- Strengthen your capability to meet business objectives.
- Improve the efficiency, effectiveness and engagement of existing employees.
- Understand trends to help identify future workforce requirements.
- Enable you, as an employer to respond and adapt to change strategically.

Self evaluation;

Does your current team meet your needs? **YES / NO**

Are you satisfied with your current team? **YES / NO**

Very satisfied _____ Very unsatisfied

Why? _____



Do you have formal HR systems and process in place? YES / NO

Are you satisfied with your current HR systems and processes?

Very satisfied _____ Very unsatisfied

Why? _____

Do you struggle to find labour in a timely manner? YES / NO

What roles are challenging to fill?

Are you clear on the future labour requirements of your business?

(this year, next year, next 5 years, next 10 years) YES / NO

Very satisfied _____ Very unsatisfied

Why? _____



Do you understand what drives your employees or family members? YES / NO

Very clear _____ Very unclear

Why? _____

Does your team know your view on the strategic direction of your business? YES / NO

Very clear _____ Very unclear

Why? _____

We want to work on this in our business, what should we do next?

- Engage with employees to understand what drives them as individuals.
- Communicate the strategic direction of your business to your people.
- Spend time building the culture of your workforce.
- Understand the composition of your current workforce.
- Determine what the future workforce requirements are of your business.



Our First Action _____

Our Second Action _____

Want to learn more, here are some suggestions;

www.fairwork.gov.au

Dare to Lead, Brene Brown

Mind Reading for Managers, Kim Seeling Smith

Start with Why, Simon Sinek



More about Sally . . .

Sally Murfet is a HR Generalist and Project Manager who believes people are the power of agriculture. With more than 20 years working on-farm or with agribusiness companies, she is an experienced professional dedicated to leading and managing HR projects that positively impact performance, profitability and productivity of business through its people.

Sally is the Chief Inspiration Officer of Inspire AG based in Tasmania. Inspire AG supports farmers, agribusinesses, industry bodies and government organisations to deliver people management solutions that help industry employers achieve business objectives.

Before establishing Inspire AG, Sally led a three-year project, funded by the Tasmanian Government for the state's farming peak body to revitalise skills, training and workforce development across the entire primary industry sector in Tasmania.

Sally was recently named the Rural Consultant of the Year at the Australian Farmer of the Year Awards for her dedication and commitments to "powering agri people".

Contact details

Sally Murfet

PO Box 9, Sorrell, Tasmania, 7172

0409 196 861

sally@inspire-ag.com.au

www.inspire-ag.com.au

@InspireAgAus



Return to contents



Notes



Notes





NVT tools

CANOLA | WHEAT | BARLEY | CHICKPEA | FABA BEAN | FIELD PEA |
LENTIL | LUPIN | OAT | SORGHUM

Long Term Yield Reporter

New web-based high speed Yield Reporting tool, easy-to-use means of accessing and interpreting the NVT Long Term MET (Multi Environment Trial) results.



Crop Disease Au App



Access to current disease resistance ratings & disease information.

Long Term Yield App



Easy access to the analysed NVT Multi Environment Trial (MET) data.

www.nvtonline.com.au



Managing a farm team – a grower’s perspective

Lauchie Cole

Woodbourn, Cressy, Tasmania

Key Messages:

- ▶ Utilise all aspects and strengths of your entire labour force.
- ▶ Understand the needs and drivers of all staff.
- ▶ Use tools that are simple and inclusive.
- ▶ Surround yourself with good people.
- ▶ Simplify where possible.

Business outline

Area farmed	1000ha
Enterprises	11 enterprises; 50% cropping 50% livestock
Average annual rainfall	550mm
Soil types	Clay loam
People in the business (family)	Parents (in-law), son-in-law and daughter
Team	2 full-time employees and extended team of consultants

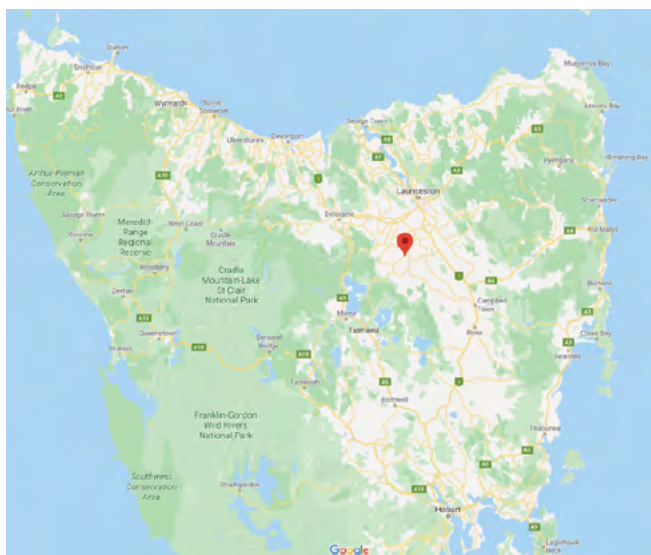


Figure 1. Location, Cressy, Tasmania



Figure 2. Satellite image Cressy, Tasmania



Introduction

Woodbourn is a 1000ha property located at Cressy in Tasmania. Our business is made up of 11 mixed enterprises, these include cereals, prime lambs, stud cattle, seed crops, vegetables, poppies and hemp, with an intensive irrigation-based system. Our team includes:

- parents, daughter and son-in-law
- 2 full-time employees
- 2 agronomists
- 3 field staff.

With a mix of 11 enterprises, communication, organisation and time critical decision making is vital to managing all members of our team. We engage with our team by utilising apps such as 'Wunderlist' and 'AgriWebb'. All staff have access to these apps, transforming our communication methods. All team members work across all aspects of the business, with some staff having specific responsibilities such as spraying and fertiliser program, irrigation, sheep vs cattle.

Our staff are involved in majority of the decision-making process and are encouraged to own their role and have input.

My follow up questions for the speaker; _____

Self evaluation;

Who manages your staff? Are they the right person to do so? YES / NO

Why? _____



What are the biggest issues you find when managing your team?

Why are they issues? _____

What tools and resources do you use to help manage your team?

Why? _____

How satisfied are you with the tools and resources you are currently using to manage your team?

Very satisfied _____ Very unsatisfied

Why? _____



We want to work on this in our business, what will we do next?

Our First Action _____

Our Second Action _____

Want to learn more, here are some suggestions;

AgriWebb farm management app; www.agriwebb.com

Wunderlist team and task management app; www.wunderlist.com

MLA website; www.mla.com.au

Agworld farm management software; www.agworld.com



More about Lauchie . . .

Lauchie was raised on a grazing property in Western Victoria. Upon leaving school he worked in the retail sector and continued his education in Landscaping and Horticulture before travelling extensively throughout Australia and working in various Agribusinesses. On his return Lauchie studied an Advanced Diploma in Farm Management at Marcus Oldham College. Upon graduation he was approached by Rimfire Resources, where he worked in Agribusiness recruitment and managed the Gradlink Program, a program that links Graduates to leading Agribusinesses throughout Australia. In 2007 Lauchie and his wife relocated to Tasmania and now they own and manage a mixed enterprise property in Northern Tasmania.

Contact details

Lauchie Cole
'Woodbourn', Cressy, Tasmania
0419 150 808
colels@bigpond.com

 **Return to contents**







LOOK AROUND YOU.

1 in 5 people in rural Australia are currently experiencing mental health issues.



GRDC
GRAINS RESEARCH
& DEVELOPMENT
CORPORATION

The GRDC supports the mental wellbeing of Australian grain growers and their communities. Are you ok? If you or someone you know is experiencing mental health issues call *beyondblue* or Lifeline for 24/7 crisis support.

beyondblue
1300 22 46 36
www.beyondblue.org.au



Lifeline
13 11 14
www.lifeline.org.au



Looking for information on mental wellbeing? Information and support resources are available through:

www.ifarmwell.com.au An online toolkit specifically tailored to help growers cope with challenges, particularly things beyond their control (such as weather), and get the most out of every day.

www.blackdoginstitute.org.au The Black Dog Institute is a medical research institute that focuses on the identification, prevention and treatment of mental illness. Its website aims to lead you through the logical steps in seeking help for mood disorders, such as depression and bipolar disorder, and to provide you with information, resources and assessment tools.

www.crrmh.com.au The Centre for Rural & Remote Mental Health (CRRMH) provides leadership in rural and remote mental-health research, working closely with rural communities and partners to provide evidence-based service design, delivery and education.

Glove Box Guide to Mental Health

The *Glove Box Guide to Mental Health* includes stories, tips, and information about services to help connect rural communities and encourage conversations about mental health. Available online from CRRMH.



www.rrmh.com.au Rural & Remote Mental Health run workshops and training through its Rural Minds program, which is designed to raise mental health awareness and confidence, grow understanding and ensure information is embedded into agricultural and farming communities.

www.cores.org.au CORES™ (Community Response to Eliminating Suicide) is a community-based program that educates members of a local community on how to intervene when they encounter a person they believe may be suicidal.

www.headsup.org.au Heads Up is all about giving individuals and businesses tools to create more mentally healthy workplaces. Heads Up provides a wide range of resources, information and advice for individuals and organisations – designed to offer simple, practical and, importantly, achievable guidance. You can also create an action plan that is tailored for your business.

www.farmerhealth.org.au The National Centre for Farmer Health provides leadership to improve the health, wellbeing and safety of farm workers, their families and communities across Australia and serves to increase knowledge transfer between farmers, medical professionals, academics and students.

www.ruralhealth.org.au The National Rural Health Alliance produces a range of communication materials, including fact sheets and infographics, media releases and its flagship magazine *Partyline*.



What is your stubble worth?

Dean Thomas

CSIRO Agriculture and Food

Key Messages:

- ▶ Header chaff is a readily available, but low quality, feed supplement that should be considered for filling periods of feed deficit.
- ▶ Sheep are highly motivated to select higher quality stubble components, but we still don't have the complete picture to manage sheep grazing chaff and stubbles.
- ▶ We need to innovate to develop new pasture forecasting and feed budgeting tools for greater precision in managing the seasonal feedbase.

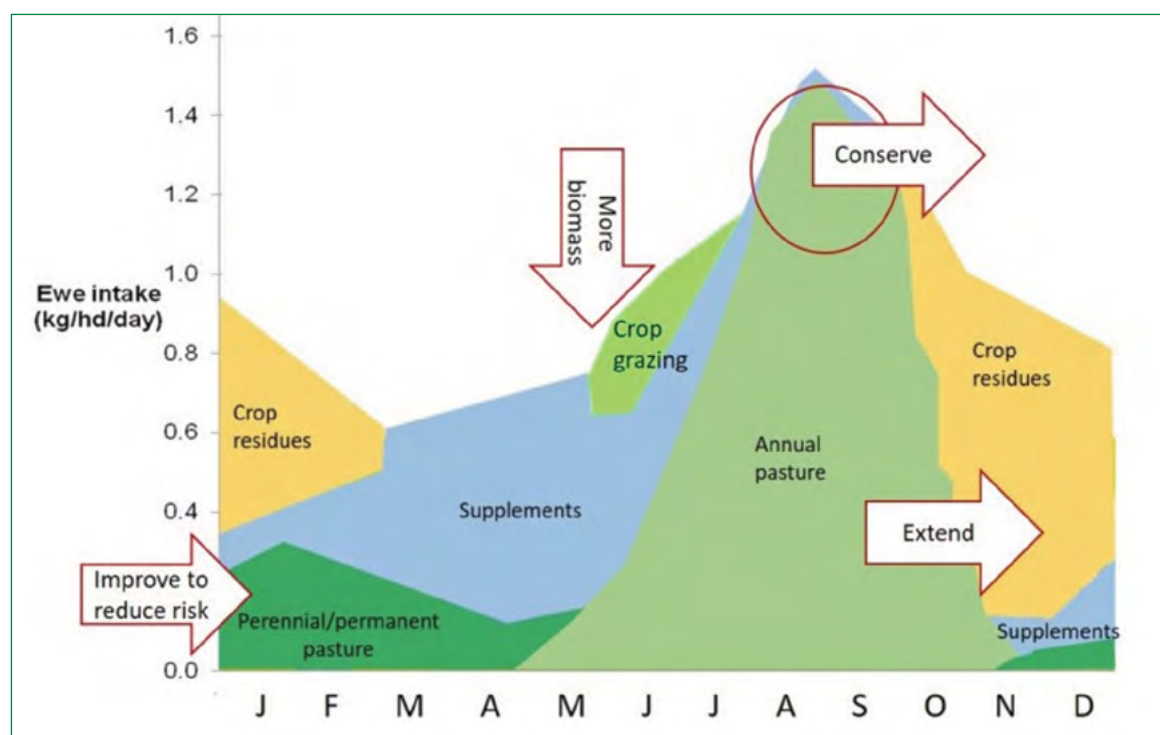


Figure 1. Feedbase in a typical Mediterranean-type mixed farming system (AusFarm modelling).

Introduction

Crop stubbles form an important part of the seasonal feedbase, particularly in areas with a Mediterranean-type climate where there are extended dry periods where little forage can be grown. The feeding value of stubbles is difficult to quantify, this is due to;

- i) the variability of stubble components
- ii) the variation in how crops are harvested and how the residues are presented
- iii) the capacity of livestock to select a higher quality diet from the forage available.



This presentation will cover results of an MLA/AWI funded field study of the nutritive value of header chaff collected across Western Australia, and the opportunity to use this as a summer feed resource. This presentation will also discuss the development of new feed budgeting and pasture forecasting tools. These tools are designed to improve confidence in forecasting and managing the seasonal feedbase, including estimating stubble feeding value and how the selection by sheep of the higher quality components of chaff and stubbles can be accounted for.

My follow up questions for the speaker; _____

Why it could be great for your farming business

Implementing the messages/strategies discussed will potentially;

- Reduce supplementary feeding costs.
- Increase productivity from better year-round nutrition.
- Provide information for tactical decision making (for example, early changes to stocking rates).

Self-evaluation;

How do you manage your seasonal feed budget?

- based on past experiences
- own tools (for example excel spreadsheet)
- commercial software
- a combination
- other _____

How satisfied are you with your management methods?

Very satisfied _____ Very unsatisfied

Why? _____



What is your proportion of crop and livestock?

How do you manage your seasonal feed budget?

- all cropping
- mainly cropping
- equal amounts
- mainly livestock
- all livestock
- other _____

Are you satisfied with the utilisation of your feedbase?

Very satisfied _____ Very unsatisfied

Why? _____

What measurements do you routinely take for ewes grazing stubbles?

How do you manage your seasonal feed budget?

- grain counts
- stubble quality
- liveweight/condition score
- all of the above
- none of the above _____

Are you satisfied with the information you are getting for decision making?

Very satisfied _____ Very unsatisfied

Why? _____



We want to work on this in our business, what will we do next?

- Make use of long-term weather data and digital information services to inform tactical decision making, such as early changes to stocking rates.
- Improve livestock productivity through;
 - i) understanding the feedbase and its variability in quality by using feed testing services,
 - ii) recording liveweight changes in stock and,
 - iii) using the best available feed budgeting tools.
- Manage vitamin and mineral deficiencies when feeding dry feeds for an extended time.

Our First Action _____

Our Second Action _____

Want to learn more, here are some suggestions;

Thomas *et al.* 2019, Pasture API: A digital platform to support grazing management for southern Australia
<https://mssanz.org.au/modsim2019/C1/thomas.pdf>

WALRC WA Livestock research council
<https://us14.campaign-archive.com/?u=e672ef9c185d4eda524314ce4&id=a8da31bbf8>

References

Thomas DT, Mitchell PJ, Zurcher EJ, Herrmann NI, Pasanen J, Sharman C, Henry DA (2019) Pasture API: A digital platform to support grazing management for southern Australia. In '23rd International Congress on Modelling and Simulation'. (Canberra, ACT) <https://mssanz.org.au/modsim2019/C1/thomas.pdf>

Acknowledgements

This research is a collaborative project between CSIRO, Meat and Livestock Australia and Australian Wool Innovation. The research undertaken as part of this project is made possible by the significant contributions of growers, the author would like to thank them for their continued support.






More about Dean . . .

Dean was raised on a sheep/wheat farm near Ravensthorpe, on the south coast of WA. He has worked in livestock systems research with CSIRO for 15 years, with a strong interest in the sustainable integration of cropping and livestock enterprises. Dean's areas of research include managing high salt diets in sheep, diet selection and grazing behaviour in ruminants, GPS tracking of sheep and cattle and modelling the seasonal feedbase. He lives in the Swan Valley region of Perth with Chloe, their 3 kids and 30 beehives.

Contact details

Dean Thomas
147 Underwood Avenue, Floreat, WA, 6014
0434 981 098
dean.thomas@csiro.au
www.csiro.au
@dtt129

 [Return to contents](#)



Notes





Connect with us

Keep in touch with us to find out about the latest RD&E, news and events.



Newsletter
subscription



Twitter
@GRDC



Facebook
@GRDC



Instagram
thegrdc



LinkedIn
GRDC



@theGRDC

**JOIN THE
CONVERSATION**

GRDC™ PODCAST

**GET THE LATEST
INFO ON THE GO**

The GRDC's podcast series features some of the grain sector's most pre-eminent researchers, growers, advisers and industry stakeholders sharing everything from the latest seasonal issues, to ground-breaking research and trial results with on-farm application.

<https://grdc.com.au/news-and-media/audio>



To subscribe to receive newsletters and publications and keep your details up-to-date visit the GRDC subscription centre:

www.grdc.com.au/subscribe



GRDC
GRAINS RESEARCH
& DEVELOPMENT
CORPORATION

P Level 4 | 4 National Circuit, Barton ACT 2600 | PO Box 5367, Kingston ACT 2604 **T** +61 2 6166 4500 **F** +61 2 6166 4599
E grdc@grdc.com.au [@theGRDC](https://www.facebook.com/theGRDC)

Is the profit worth the risk? Assessing your enterprise mix

Cam Nicholson

Nicon Rural Services

Key Messages:

- ▶ Risk is a necessary part of making profits and is especially true in farming.
- ▶ Understanding the risk in your farming business is essential to good farm decision making.
- ▶ The Farm options tool provides a relatively simple way to understand the risk in your farming business.

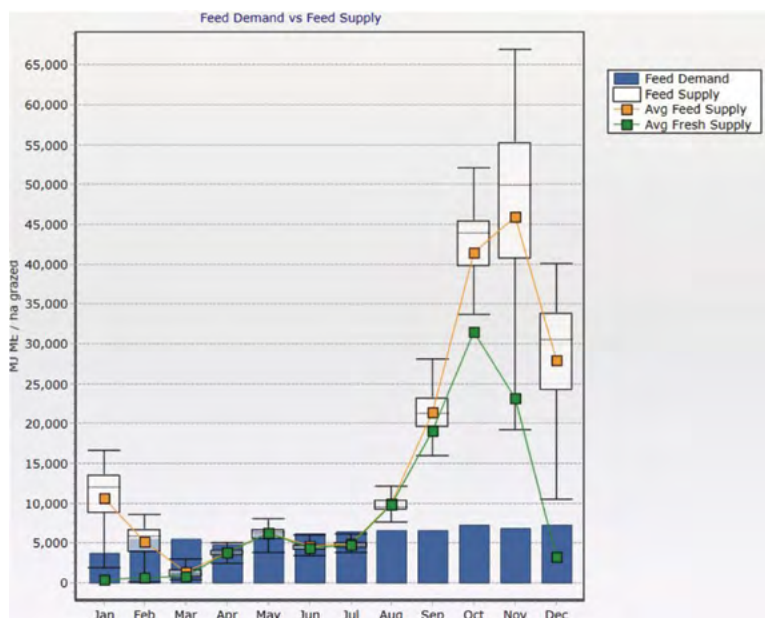
Introduction

This presentation focuses on demonstrating a relatively simple way to analyse the risks in a mixed farming business. While it is possible to analyse a single commodity for both yields and prices easily, it becomes more challenging when there are multiple enterprises to consider and some of those enterprises can be used interchangeably e.g. grazing crops in winter or stubble, cutting frosted crops for hay etc.

A new computer program developed through the Grain and Graze program allows an individual to quickly analyse the interaction and risk for a current and future mixed farming operation. Called Farm Options, this simple model used historic rainfall, the water holding capacity of the soil and chosen crop and pasture rotations as well as animal enterprises to understand the interaction and volatility in profit and production.

The tool can be used to undertake 'what if' scenarios, where areas of crops and livestock can be changed, and the impact of these changes compared.

Farm Options is free and available for download at www.grainandgraze3.com.au, tools and calculators.



My follow up questions for the speaker; _____



Why it could be great for your farming business;

- Good decision making requires an understanding of the risks involved.
- Best to do this analysis before making big decisions rather than learning from hindsight.

Self evaluation;

How do you currently analyse mixes in your farming business?

Are you satisfied with your current method of analysing rotations in your business?

Very satisfied _____ Very dissatisfied

Why? _____



I/We want to work on this in our business, what should we do next?:

- Download Farm Options and have a go.
- Refer to previous GRDC Farm Business Update papers on risk and decision making.

Our First Action _____

Our Second Action _____

Want to learn more, here are some suggestions;

www.grainandgraze3 then go to tools and calculators
www.grdc.com.au/resources-and-publications/grdcupdate-papers



More about Cam . . .

Cam Nicholson is a partner in Nicon Rural Services, a consulting business near Geelong working with the grazing and cropping industries and in natural resource management. Cam has been involved in many farmer programs for the GRDC, MLA, Dairy Australia, Southern Farming Systems and Landcare. He provides consultancy advice to farmers and lectures on animal and pasture systems at Marcus Oldham College.

He and his wife Fiona run a 400ha beef and sheep farm on the Bellarine Peninsula, turning off cattle for the long fed Japanese market, lambs and wool.

Contact details

Cam Nicholson
32 Stevens Street, Queenscliff, Vic, 3225
0417 311 098
cam@niconrural.com.au

 **Return to contents**



Notes



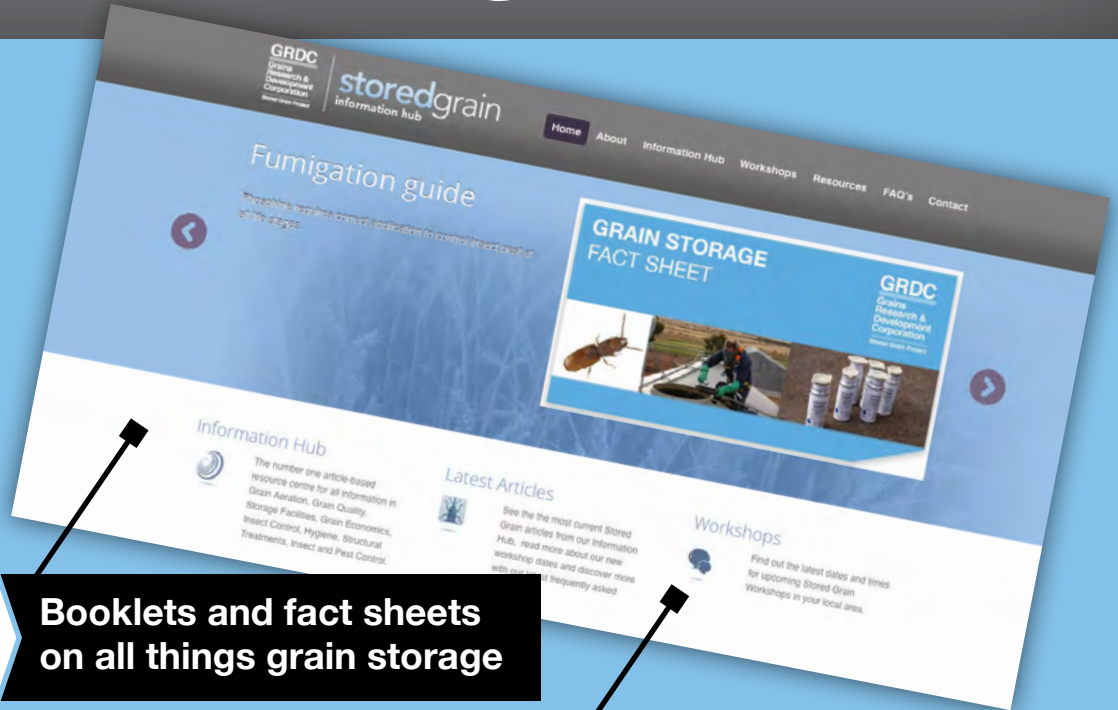
Notes



GET THE LATEST STORED GRAIN INFORMATION ONLINE



storedgrain.com.au



Booklets and fact sheets on all things grain storage

Workshops in all regions covering topics such as:

- Economics of on-farm storage
- Grain storage hygiene
- Aeration cooling or drying
- Managing high moisture
- Fumigation
- Insect pest management
- Managing different storages
- Storage facility design
- Storing pulses and oilseeds



Call the National Grain Storage Information

Hotline **1800 WEEVIL** (1800 933 845) to speak to your local grain storage specialist for advice or to arrange a workshop

Download the new storedgrain app to get the latest information and storage recording tool on your iPhone or iPad



Integrated cropping and livestock – what works, what doesn't? A grower perspective

Tim McClelland

A.W. McClelland & Co, Birchip, Victoria

Key Messages:

- ▶ There are many advantages and rewards to incorporating livestock into a Mallee cropping enterprise. However, the integration of enterprises creates an extra level of complexity.
- ▶ Producing high quality lamb, wool and breeding sheep can be equally as rewarding as growing a good crop.
- ▶ When assessing the economics of livestock in your business make sure you account for the extra labour cost. It can be very frustrating putting sheep back into their paddock on a Friday night or Sunday morning.

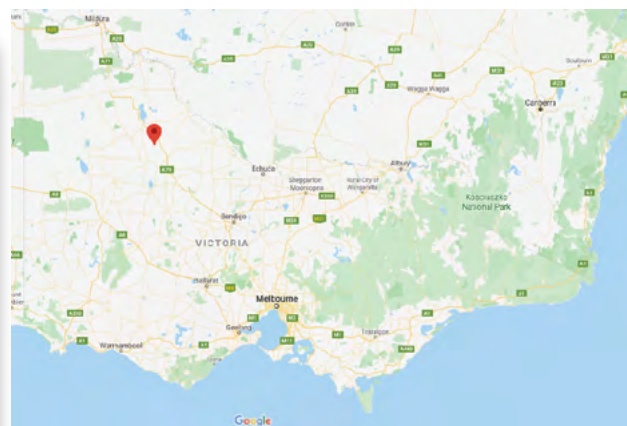


Figure 1. Location, Jil Jil (Birchip), Victoria

Business outline

Area farmed	6,500ha
Enterprises	Grazing 21%, cropping 76%, hay 3%. 3500 breeding ewes - Merino and Coopworth/White Suffolk cross
Average annual rainfall	330mm
Soil types	Sand, sandy clay loam, clay loam
People in the business (family)	Father (Ian McClelland), wife (Julie McClelland), aunt (Ros McClelland)
Team	Two full time employees - Richard and Russell Trollope
Business goal	McClelland Group balances personal, financial and lifestyle goals with the commercial, ethical and environmental imperatives of the farm, for the benefit of current and future generations.

Introduction

Livestock has been a part of our farming business since its inception in the early 1900's. Our motivation is multi-faceted which can be broken down in three main areas; diversification, financial and social. Livestock is not the primary focus of our business, but it plays an essential role in managing the diverse seasonal conditions experienced in the Mallee. The livestock reduces our risk by providing a relatively consistent income stream, irrespective of the season, and effectively smooths our income. It potentially lowers our profit in good seasons but on the flip side limits the losses in poor seasons. Given the longevity of sheep in our system there is significant social motivation. My uncle, supported by my father, spent his farming career building and refining our dual-purpose Merino flock to suit our Mallee conditions.



One of the most eagerly anticipated days on the farming calendar is ram classing day. The satisfaction generated, and legacy, of our Mallee merinos is significant and needs to be carefully considered when any rational decision is applied to the livestock operation.

While the motivation is clear additional enterprises will always add extra complexity to the management and logistics of the farm. Every cropping and livestock operation has implications for the other enterprise. There are many examples, but autumn and spring feed gaps present one of the greatest challenges in management. Cropping best practice would dictate that pastures are terminated in the spring in order to preserve moisture and nutrients for the following crop, prevent weed seed set (e.g. Barley grass) and reduce root disease pressure. In poor seasons pasture growth and supply in September, October and early November can be limited and reduces our ability to make the decision to terminate.

During the run poor seasons of the 2000's the cropping program was significantly affected by a build-up of weeds, particularly barley and ryegrass, and diseases through limited pasture termination and an increased proportion of cereals in the rotation. In this case the feed demand took precedence over the need for agronomic best practice

This was a less than desirable outcome and forced us to alter our management. The compromise included;

- reducing the number of ewes on the property by approximately 1000
- a new mix of pastures to allow the selective control of grasses; oats/vetch, moby/vetch and vetch/canola
- prioritising and terminating (Glyphosate) pastures with the highest weed pressure
- constructing additional containment areas
- increasing on-farm fodder reserves allowing for utilisation of containment areas
- incorporating high cost pre-emergent herbicides (for example, Sakura) to aid in grass control
- introducing dual-purpose long season wheats.

My follow up questions for the speaker; _____



Self evaluation;

Are you satisfied with the current mix of enterprises on your property?

Very satisfied _____ Very unsatisfied

Why? (i.e. no livestock, too much compromise between enterprises) _____

***I can assess the trade-offs of my decisions quickly and with reasonable accuracy between enterprises?
YES / NO***

How satisfied are you with the tools and resources you are using to manage and monitor profit and risk benefits of cropping and livestock integration?

Very satisfied _____ Very unsatisfied

Why? _____

How could this be improved? _____



We want to work on this in our business, what will we do next?

- Review broad gross margin analysis on each enterprise.
- Examine business fixed costs applicable to each enterprise.
- Analyse the volatility of farm income over time (for example, review surplus years versus losses).
- Use available tools to assess your enterprise mix and consider 'what if' scenarios.
- Contact an adviser to analyse production metrics.

Our First Action _____

Our Second Action _____



More about Tim . . .

Tim farms with his wife, father and aunt on a 6,500ha mixed property at Birchip in the southern Mallee. He has always enjoyed being involved with farming and learnt hands on skills from a very young age. After completing his Bachelor of Agriculture and Commerce at The University of Melbourne in 2006, Tim took on work at Advisor Edge, BCG, and RMCG in the agricultural field; analysing and providing reports on agricultural industries. In 2011, Tim moved back to Birchip and continued his role with BCG and commenced his formal involvement with the family farm. With his logical train of thought and growing up in a family that often quoted

outcomes of previous years to support arguments, Tim was keen find ways for growers (like himself) to use solid and reliable evidence to inform their decisions and minimise risk.

Contact details:

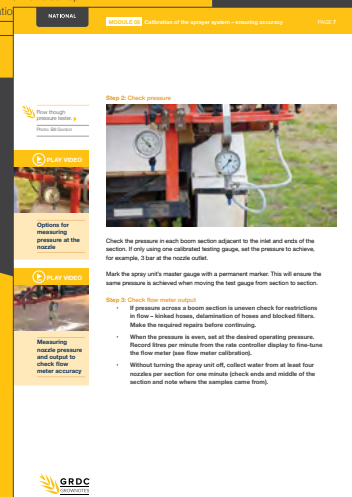
Tim McClelland
tim@modelagronomics.com.au
@prophetised

 [Return to contents](#)





SPRAY APPLICATION GROWNOTES™ MANUAL



SPRAY APPLICATION MANUAL FOR GRAIN GROWERS

The Spray Application GrowNotes™ Manual is a comprehensive digital publication containing all the information a spray operator needs to know when it comes to using spray application technology.

It explains how various spraying systems and components work, along with those factors that the operator should consider to ensure the sprayer is operating to its full potential.

This new manual focuses on issues that will assist in maintaining the accuracy of the sprayer output while improving the efficiency and safety of spraying operations. It contains many useful tips for growers and spray operators and includes practical information – backed by science – on sprayer set-up, including self-

propelled sprayers, new tools for determining sprayer outputs, advice for assessing sprayer operation, improving droplet capture by the target, drift-reducing equipment and techniques, the effects of adjuvant and nozzle type on drift potential, and surface temperature inversion research.

It comprises 23 modules accompanied by a series of videos which deliver 'how-to' advice to growers and spray operators in a visual easy-to-digest manner. Lead author and editor is Bill Gordon and other contributors include key industry players from Australia and overseas.

Spray Application GrowNotes™ Manual – go to:
<https://grdc.com.au/Resources/GrowNotes-technical>
 Also go to <https://grdc.com.au/Resources/GrowNotes>
 and check out the latest versions of the Regional Agronomy
 Crop GrowNotes™ titles.

A profit first approach to precision agriculture

Royce Pitchford

Rural Directions Pty Ltd

GRDC project code: 9176123

Key Messages:

- ▶ Well planned and implemented precision agriculture (PA) helps capture farm profit and conversely, poorly planned and implemented PA can erode farm profit.
- ▶ The recipe for profitable PA adoption will be different for each farm business.
- ▶ PA information sourced from outside the farm business informs what's possible, while information from inside the farm business informs what's most likely to be profitable.
- ▶ Using the collective strengths of those inside your farm business and your service providers increases the chances of PA adding to profit.

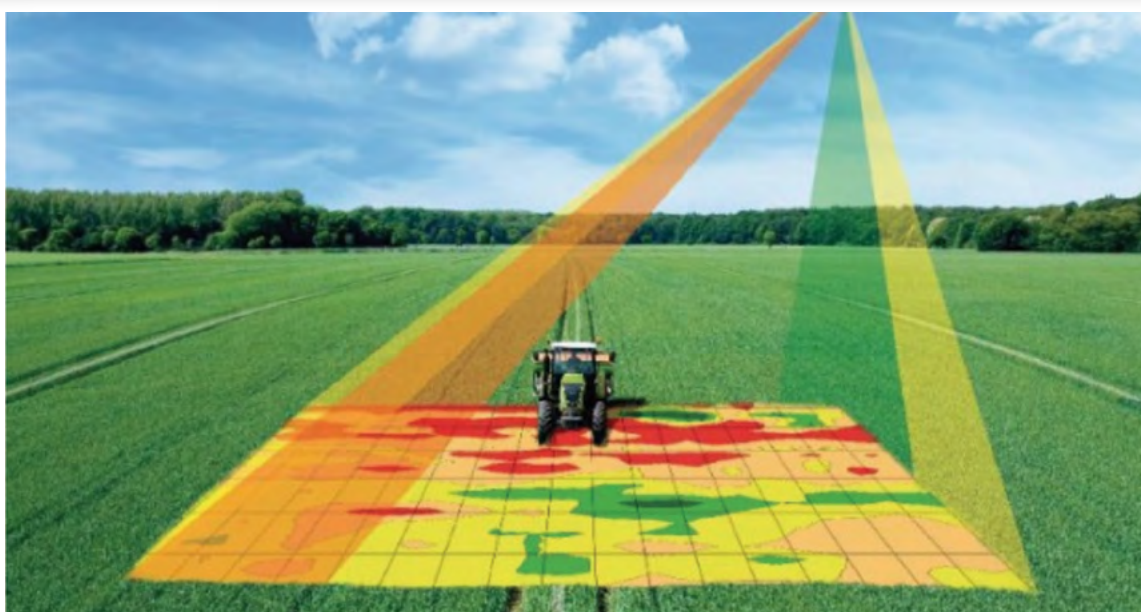


Table 1. The profit first approach to assessing Precision Ag (PA) opportunities.

Stage	What you need to consider	Example answer
Question 1	What profit gain opportunities exist for the farm business?	We have low pH soils limiting yield potential in some but not all areas on the farm.
Question 2	Does PA have a role in addressing those opportunities?	Soil types are variable within paddocks so VR application of lime could be an option.
Question 3	Does the business have the capacity to usefully implement?	The PA profit ready check list is a good place to start. See Appendix 1.
Question 4 4.1 How much spatial variability exists? 4.2 Calculating the likely gain 4.3 What are the capital and operating costs?	Do the economics stack up and what else needs consideration?	A partial budget analysis compares using PA or not, (for example, VR lime vs uniform spreading) to address the issue. Lower liming costs will mean more paddocks can be amended in one season.
Question 5	How do we make it happen?	Considerations for effective implementation so that the profit gain opportunity is achieved



Introduction

Precision agriculture tools have long been available to grain growers, yet adoption rates vary among regions and technologies. Adoption of relatively simple applications such as auto steer and auto section control has occurred by approximately 80% of grain growers across the GRDC Southern Region (Umbers 2017). Adoption of other applications has been much slower, even if the applications have clearly demonstrated to provide value. These applications include variable rate (VR) application of fertiliser or soil ameliorants on different soil types across a paddock, yield monitoring and yield mapping to aid decision making, and selective spot spraying of weeds (Llewellyn and Ouzman 2015).

Previous work shows a consistent trend of substantial variation in both profit achievement and grain yield among growers in similar environments. Which demonstrates the opportunity for many growers to improve their bottom line and move closer to enduring profits. It has been proposed that precision agriculture tools are more likely to provide economic value when farm businesses:

- Look inside their business to identify profit opportunities and ensure that profit driver basics are covered.
- Examine if PA tools will help capture identified profit opportunities and if the business is equipped to implement PA.
- Evaluate the potential economic benefit using appropriate methods and consider other benefits that may indirectly contribute to profit.
- Assemble a team of PA support from both inside and outside the farm business to plan and implement the PA application.

My follow up questions for the speaker; _____

Why it could be great for your farming business;

Implementing the messages/strategies discussed will potentially;

- Identify areas to improve profitability in your business and achieve them.
- Result in profitably benefits through implementing PA applications.
- Lead to adoption of PA tools with the help of your own PA team.



Self evaluation;

When did you get sub 10cm autosteer? 2000, 2005, 2010, 2015 or 2020?

Are you an early adopter? _____ More conservative?

How does this impact your business? _____

Are you currently using PA technology?

None _____ A lot of PA

What PA are you doing? _____

Is PA still having the same level of impact that it had when you first started? YES / NO

What effect is PA having on your farm? _____



What other opportunities are there for PA to impact your business profit?

I/We want to work on this in our business, what should we do next?:

- Ask yourself, what profit gain opportunities exist for your business? This requires looking at the business and the associated key benchmarks to see where the business is currently underperforming. (Table 1 and Appendix 1, Table 2)
- Does PA have a role in addressing those opportunities? Look at the 'Profit from Precision Agriculture management guideline' to see what PA opportunities might exist for your business.
- Does the business have the capacity to usefully implement? Will implementation impact other areas of the business?
- Do the economics stack up and what else needs consideration?
- How do we make it happen? (Appendix 1, Table 3)

Our First Action _____

Our Second Action _____



Want to learn more, here are some suggestions;

PA In Practice II https://grdc.com.au/__data/assets/pdf_file/0012/100740/painpracticeii-pdf.pdf

Applying PA – A reference guide for the modern practitioner

https://grdc.com.au/__data/assets/pdf_file/0027/39852/applyingpa-pdf.pdf

Calculating Return On Investment for on-farm trials. DIY Precision Agriculture.

https://grdc.com.au/__data/assets/pdf_file/0026/233945/diy-pa-calculating-roi-for-on-farm-trials.pdf

Profit from Precision Agriculture management guidelines - due soon on the GRDC website

Redden P, Pitchford R and Burke K (2019) A profit first approach to precision agriculture. In 'GRDC Horsham Farm Business Update proceedings'. <https://grdc.com.au/resources-and-publications/grdc-update-papers/tab-content/grdc-update-papers/2019/06/a-profit-first-approach-to-precision-agriculture>

References

Llewellyn RS and Ouzman J (2015) Adoption of precision agriculture related practices: status, opportunities and the role of farm advisers. CSIRO www.csiro.au

Umbers A (2017) GRDC Farm Practices Survey Report 2016. Grains Research and Development Corporation, Canberra

Acknowledgements

The research undertaken as part of this project is made possible by the significant contributions of growers through both case study cooperation and the support of the GRDC, the authors would like to thank them for their continued support. We thank the numerous growers that generously shared their experience, results and insight. We also thank the Project Steering Committee team of Sam Trengove, Jess Koch, Andrew Whitlock, Brendan Williams, Daniel Harris, Rick Llewellyn and Randall Wilksch who provided valuable expertise and guidance.

Authors

Kate Burke (Think Agri Pty Ltd) and Patrick Redden and Royce Pitchford (Rural Directions Pty Ltd).



More about Royce . . .

Royce started with Rural Directions in late 2017 under the graduate program after completing a Bachelor of Agricultural Science at the University of Adelaide. Royce has since completed the graduate program and is now an agribusiness consultant where he works on whole of business benchmarking, advisory boards, machinery cost of ownership and livestock production.

Contact details

Royce Pitchford
9 Strickland Street, Clare, SA, 5453
08 8841 4500; 0429 305 915
rpitchford@ruraldirections.com
[@royce_pitchford](https://www.instagram.com/royce_pitchford)



Return to contents



Appendix 1

Table 2. Checklist for assessing PA opportunities.

Checklist for assessing PA opportunities		
1	Is there room to improve water use efficiency and yield relative to climate limited potential via crop rotation, crop agronomy, and operational timeliness?	If yes, stop the PA path and explore these other Profit pathways first.
2	How long has the PA product or application been around? Has it been robustly tested in a commercial environment?	More established PA products tend to be cheaper with greater capability and reliability.
3	Does the technology influence long term average crop yield?	Technologies which unlock yield potential and result in yield increases, with only a small to moderate increase in cost can deliver substantial net economic benefit
4	Is the PA technology the most cost-effective mechanism to achieve the outcome that I am striving for?	Sometimes there are other ways to achieve the same outcome. Select the simplest and most cost-effective option to achieve a desired outcome wherever possible.
5	Have I undertaken a robust economic assessment? Did this analysis demonstrates a positive net benefit?	The range in net economic benefits can be substantial and is often very sensitive to the cost of purchasing the technology and the robustness of the assumptions made.
6	Do I understand how the benefit will be influenced by climatic variability between seasons? Do my assumptions accurately reflect the likely benefit or cost saving by taking a long-term perspective which captures the influence of seasonal variability?	Some technologies have very different payoffs under different seasonal conditions. It is important that this difference is understood and captured in an economic analysis. Tools such as CliMate can be used to add rigour to assumptions around seasonality and the way in which it may influence the benefit.
7	Do I understand how my available level of scale impacts the commercial result?	A technology which is commercially feasible for one business may not pass the commercial feasibility test for a smaller scale business.
8	Have I used long term, decile 5 pricing rather than spot pricing when calculating the net economic benefit or a range of price scenarios?	Spot pricing influences the value of the possible benefit or cost saving and can be misleading if the price used is substantially different from the longer-term average. This applies to both input cost prices and grain prices.
9	Can I access the skill set and capacity to manage the data capture and interpretation required for this PA application?	Most forms of PA require data capture, analysis, and preparation. The impact on labour demand is an important consideration.
10	Have I completed the economic assessment on the application of this technology without bias?	Personal bias can influence an economic assessment. A bias free analysis will be more robust.



Table 3. Checklist for profit first Precision Ag (PA) implementation.

Checklist for Profit First PA implementation		
1.	Develop an implementation plan	<ul style="list-style-type: none"> • State clearly the profit opportunities you are trying to capture. • Step out some realistic timeframes to capture the opportunities. There may be multiple years required to achieve the goal and some opportunities may be higher priorities than others. • Prioritise tasks by identifying what the critical steps are in the process that if not done will derail everything? • Document the plan.
2.	Choose your PA team (and resources)	<ul style="list-style-type: none"> • Be realistic and recognise where you have internal capacity and where the gaps are. • Growers are often strong 'doers' and advisers strong 'planners' – use the strengths of each. • Form a team to implement the project, with clear roles for each member.
3.	Gathering the data	<p>A Profit from PA approach demands that data has a useful purpose. Consider the following when planning implementation:</p> <ul style="list-style-type: none"> • What data do we need to make this happen? • Does this data actually provide insight into the opportunity? • Is the information showing me causation or correlation? • How much data is enough to capture the opportunity? • What is the most cost-effective form of data collection? • Is there multi-purpose data applicable for several decisions? • Are the assumptions appropriate when converting data to management decisions?
4.	Effective execution	<p>Implementation ultimately comes down to execution. The following execution tips were provided by growers and advisers using PA successfully:</p> <ul style="list-style-type: none"> • Should we do a pilot or trial somewhere before committing to the whole farm or paddock? • Can I talk to someone with experience and learn from their mistakes? • Do I have key contacts in my phone ready for trouble shooting? • What could go wrong and what contingencies do we have in place?
5.	Evaluation	<p>To evaluate the success of the project, consider the following:</p> <ul style="list-style-type: none"> • Did we capture the profit opportunity? • Do our trial results back up the approach? • What can we improve for next time? • Are there other opportunities we can apply this to in the future?







SOUTHERN/WESTERN REGION*



PREDICTA[®] B

KNOW BEFORE YOU SOW

*CENTRAL NSW, SOUTHERN NSW, VICTORIA, TASMANIA, SOUTH AUSTRALIA, WESTERN AUSTRALIA



Cereal root diseases cost grain growers in excess of \$200 million annually in lost production. Much of this loss can be prevented.

Using PREDICTA[®] B soil tests and advice from your local accredited agronomist, these diseases can be detected and managed before losses occur. PREDICTA[®] B is a DNA-based soil-testing service to assist growers in identifying soil borne diseases that pose a significant risk, before sowing the crop.

Enquire with your local agronomist or visit

http://pir.sa.gov.au/research/services/molecular_diagnostics/predicta_b

Potential high-risk paddocks:

- Bare patches, uneven growth, white heads in previous crop
- Paddocks with unexplained poor yield from the previous year
- High frequency of root lesion nematode-susceptible crops, such as chickpeas
- Intolerant cereal varieties grown on stored moisture
- Newly purchased or leased land
- Cereals on cereals
- Cereal following grassy pastures
- Durum crops (crown rot)

There are PREDICTA[®] B tests for most of the soil-borne diseases of cereals and some pulse crops:

- Crown rot (cereals)
- Rhizoctonia root rot
- Take-all (including oat strain)
- Root lesion nematodes
- Cereal cyst nematode
- Stem nematode
- Blackspot (field peas)
- Yellow leaf spot
- Common root rot
- Pythium clade f
- Charcoal rot
- Ascochyta blight of chickpea
- White grain disorder
- Sclerotinia stem rot

Why performance isn't always about the outcomes

Nathan Burke

Nathan Burke Consulting

Key Messages:

- ▶ There is a vital difference between Performance and Outcomes.
- ▶ High Performance starts with having a clear understanding of what success looks like.
- ▶ The key to high performance is 'being ready' to perform.
- ▶ The ability to choose your own attitude is the most powerful tool you have as a high performer and leader.



Introduction

Running a farm is a lot like elite sport, believe it or not. Sport in 2020 is highly competitive, the margins between winning and losing are getting smaller and the repercussions for failure are growing rapidly. To thrive in this world, we have to get the most out of our valuable resources. The most valuable resource is your people. How do you turn them into high performers who can perform under pressure, in any conditions and narrow the gap between their best and worst? In other words, be a high performer.

My follow up questions for the speaker; _____



Why it could be great for your farming business

Improving personal performance can lead to improved business performance and profitability by;

- Understanding the difference between performance and outcomes can help you identify and apply strategies to improve your leadership.
- Acquiring tools and skills to assess and manage your own attitude and mindset will help your mental health resilience – improving your management capabilities and team performance.
- Designing and embedding your own company culture, (great companies don't let culture evolve by default).
- It will allow you to place your energy onto what is important and not be side-tracked by diversions or unnecessary challenges.

Self evaluation;

How would you describe your attitude and mindset?

How satisfied are you with your own attitude and mindset?

Very satisfied _____ Very unsatisfied

Why? _____

What gets you frustrated often?

Is it something you can control or is it out of your control? _____



How easy is it to bounce back from setbacks?

Easy _____ Hard

How would your family and team describe your attitude and mindset?

Why? _____

How might a change in your attitude or mindset impact your team?

How satisfied are you with your business performance?

Very satisfied _____ Very unsatisfied

Why? _____

Are there opportunities to improve your personal performance? YES / NO

How? _____



We want to work on this in our business, what should we do next?

- Get a clear idea of what success looks like for you and the business.
- Understand the current conditions you are working in, such as drought, market prices, etc.
- Detail the key performances that you must get right in order to be successful.
- Assess your readiness to perform against the six areas identified in the seminar.
- Take ownership on improving the things you need to, in order to be ready to perform.

Our First Action _____

Our Second Action _____

Want to learn more, here are some suggestions;

I have numerous blogs on my website about leadership and performance. You can pick your way through the relevant ones for you.

www.nathanburkeconsulting.com





More about Nathan . . .

Through Nathan's 27 years in the elite world of AFL football he has gained great insight into how to extract great performance from individuals and teams.

Nathan began his career as a primary school teacher. Since then he has been an AFL Assistant Coach, Senior Consultant at leading Management Consultancy, Mettle Group and recently Chief Operating Officer and People and Cultural Manager at CallActive Pty Ltd. His 7-year term as a Director of the St Kilda Football Club recently came to an end when he accepted the AFL's offer to join the Match Review Panel.

Nathan has a Diploma of Teaching and Diploma of Business, but most importantly is married to Fiona and has three beautiful daughters, Ruby, Molly and Alice.

AFLW

Current Western Bulldogs AFLW head coach.

AFL

- *assistant coach St Kilda F.C 2004-05*
- *Director of St Kilda F.C 7 years*
- *current member AFL Match review panel.*

Sporting career

- *323 AFL games, 1987-2003*
- *4 x all Australian*
- *3 x best and fairest, 2x runner-up, 3 x 3rd and U/19*
- *Captain St Kilda FC & Victoria State of Origin*
- *Victoria State of Origin x 11*
- *International Rules Aust' v Ireland x2*
- *all Australian Vice Captain*
- *St Kilda team of the century*
- *St Kilda FC Hall of Fame member*
- *AFL life member & St Kilda life member*
- *Player of the year; Herald Sun; The Age and Channel 7 Sportsworld*
- *runner up Brownlow Medal 1996*
- *Australian Sports Medal 2000*
- *Monash University Sports Hall of Fame.*

Contact details

Nathan Burke
0408 151 134
nathanburke3@icloud.com
www.nathanburkeconsulting.com
@nathan3burke



Nathan and his daughters

 **Return to contents**





LOOK AROUND YOU.

1 in 5 people in rural Australia are currently experiencing mental health issues.



GRDC
GRAINS RESEARCH
& DEVELOPMENT
CORPORATION

The GRDC supports the mental wellbeing of Australian grain growers and their communities. Are you ok? If you or someone you know is experiencing mental health issues call *beyondblue* or Lifeline for 24/7 crisis support.

beyondblue

1300 22 46 36

www.beyondblue.org.au



Lifeline

13 11 14

www.lifeline.org.au



Looking for information on mental wellbeing? Information and support resources are available through:

www.ifarmwell.com.au An online toolkit specifically tailored to help growers cope with challenges, particularly things beyond their control (such as weather), and get the most out of every day.

www.blackdoginstitute.org.au The Black Dog Institute is a medical research institute that focuses on the identification, prevention and treatment of mental illness. Its website aims to lead you through the logical steps in seeking help for mood disorders, such as depression and bipolar disorder, and to provide you with information, resources and assessment tools.

www.crrmh.com.au The Centre for Rural & Remote Mental Health (CRRMH) provides leadership in rural and remote mental-health research, working closely with rural communities and partners to provide evidence-based service design, delivery and education.

Glove Box Guide to Mental Health

The *Glove Box Guide to Mental Health* includes stories, tips, and information about services to help connect rural communities and encourage conversations about mental health. Available online from CRRMH.



www.rrmh.com.au Rural & Remote Mental Health run workshops and training through its Rural Minds program, which is designed to raise mental health awareness and confidence, grow understanding and ensure information is embedded into agricultural and farming communities.

www.cores.org.au CORES™ (Community Response to Eliminating Suicide) is a community-based program that educates members of a local community on how to intervene when they encounter a person they believe may be suicidal.

www.headsup.org.au Heads Up is all about giving individuals and businesses tools to create more mentally healthy workplaces. Heads Up provides a wide range of resources, information and advice for individuals and organisations – designed to offer simple, practical and, importantly, achievable guidance. You can also create an action plan that is tailored for your business.

www.farmerhealth.org.au The National Centre for Farmer Health provides leadership to improve the health, wellbeing and safety of farm workers, their families and communities across Australia and serves to increase knowledge transfer between farmers, medical professionals, academics and students.

www.ruralhealth.org.au The National Rural Health Alliance produces a range of communication materials, including fact sheets and infographics, media releases and its flagship magazine *Partyline*.





LIVE AND ONLINE

GROUNDCOVER™

New GroundCover stories are available daily at GroundCover online.

Stories include seasonally and regionally relevant information on topics ranging from advances in plant breeding and biotechnology, new varieties and agronomic best practice, through to harvest and on-farm grain storage.

Visit www.groundcover.grdc.com.au for the latest stories.

To subscribe to receive the bi-monthly printed magazine and keep your details up-to-date visit the GRDC subscription centre www.grdc.com.au/subscribe



THE 2017-2020 GRDC SOUTHERN REGIONAL PANEL

JANUARY 2020



CHAIR - JOHN BENNETT



Based at Lawloit, between Nhill and Kaniva in Victoria's West Wimmera, John, his wife Allison and family run a mixed farming operation across diverse soil types. The farming system is 70 to 80 percent cropping, with cereals, oilseeds, legumes and hay grown. John believes in the science-based research, new technologies and opportunities that the GRDC delivers to graingrowers. He wants to see RD&E investments promote resilient and sustainable farming systems that deliver more profit to growers and ultimately make agriculture an exciting career path for young people.

M 0429 919 223 E john.bennett5@bigpond.com

DEPUTY CHAIR - MIKE MCLAUGHLIN



Mike is a researcher with the University of Adelaide, based at the Waite campus in South Australia. He specialises in soil fertility and crop nutrition, contaminants in fertilisers, wastes, soils and crops. Mike manages the Fertiliser Technology Research Centre at the University of Adelaide and has a wide network of contacts and collaborators nationally and internationally in the fertiliser industry and in soil fertility research.

M 0434 765 574
E michael.mclaughlin@adelaide.edu.au

PETER KUHLMANN



Peter is a farmer at Mudamuckla near Ceduna on South Australia's Western Eyre Peninsula. He uses liquid fertiliser, no-till and variable rate technology to assist in the challenge of dealing with low rainfall and subsoil constraints. Peter has been a board member of and chaired the Eyre Peninsula Agricultural Research Foundation and the South Australian Grain Industry Trust.

M 0428 258 032 E mudable@bigpond.com

JON MIDWOOD



Jon has worked in agriculture for the past three decades, both in the UK and in Australia. In 2004 he moved to Geelong, Victoria, and managed Grainsearch, a grower-funded company evaluating European wheat and barley varieties for the high rainfall zone. In 2007, his consultancy managed the commercial contract trials for Southern Farming Systems (SFS). In 2010 he became Chief Executive of SFS, which has five branches covering southern Victoria and Tasmania. In 2012, Jon became a member of the GRDC's HRZ Regional Cropping Solutions Network.

M 0400 666 434 E jmidwood@sfs.org.au

FIONA MARSHALL



Fiona has been farming with her husband Craig for 21 years at Mulwala in the Southern Riverina. They are broadacre, dryland grain producers and also operate a sheep enterprise. Fiona has a background in applied science and education and is currently serving as a committee member of Riverine Plains Inc, an independent farming systems group. She is passionate about improving the profile and profitability of Australian grain growers.

M 0427 324 123 E redbank615@bigpond.com

LOUISE FLOHR



Lou is a farmer based at Lameroo in the Southern Mallee of South Australia. Along with her parents and partner, she runs a mixed farming enterprise including export oaten hay, wheat, barley a variety of legumes and a self-replacing Merino flock. After graduating Lou spent 3 years as a sales agronomist where she gained valuable on-farm experience about the retail industry and then returned to her home town of Lameroo. She started her own consultancy business three years ago and is passionate about upskilling women working on farms.

M 0429 083 927 E flohrlouise@gmail.com

RICHARD MURDOCH



Richard along with wife Lee-Anne, son Will and staff, grow wheat, canola, lentils and faba beans on some challenging soil types at Warooka on South Australia's Yorke Peninsula. They also operate a self-replacing Murray Grey cattle herd and Merino sheep flock. Sharing knowledge and strategies with the next generation is important to Richard whose passion for agriculture has extended beyond the farm to include involvement in the Agricultural Bureau of SA, Advisory Board of Agriculture SA, Agribusiness Council of Australia SA, the YP Alkaline Soils Group and grain marketing groups.

M 0419 842 419 E tuckokowie@internode.on.net

MICHAEL CHILVERS



Michael runs a collaborative family farming enterprise at Nile in the Northern Midlands of Tasmania (with property also in northern NSW) having transitioned the business from a dryland grazing enterprise to an intensive mixed farming enterprise. He has a broad range of experience from resource management, strategic planning and risk profiling to human resource management and operational logistics, and has served as a member of the the High Rainfall Zone Regional Cropping Solutions Network for the past seven years.

M 0409 974 556 E fchilvers@bigpond.com

KATE WILSON



Kate is a partner in a large grain producing operation in Victoria's Southern Mallee region. Kate and husband Grant are fourth generation farmers producing wheat, canola, lentils, lupins and field peas. Kate has been an agronomic consultant for more than 20 years, servicing clients throughout the Mallee and northern Wimmera. Having witnessed and implemented much change in farming practices over the past two decades, Kate is passionate about RD&E to bring about positive practice change to growers.

M 0427 571 360 E kate.wilson@agrivision.net.au

ANDREW RUSSELL



Andrew is a fourth generation grain grower and is currently the Managing Director and Shareholder of Lilliput AG and a Director and Shareholder of the affiliated Baker Seed Co - a family owned farming and seed cleaning business. He manages the family farm in the Rutherglen area, a 2,500 ha mixed cropping enterprise and also runs 2000 cross bred ewes. Lilliput AG consists of wheat, canola, lupin, faba bean, triticale and oats and clover for seed, along with hay cropping operations. Andrew has been a member of GRDC's Medium Rainfall Zone Regional Cropping Solutions Network and has a passion for rural communities, sustainable and profitable agriculture and small business resilience.

M 0417 401 004 E arussell@lilliput-ag.com.au

DR NICOLE JENSEN



Nicole Jensen is GRDC General Manager for the newly created Genetics and Enabling Technologies business group. Nicole brings a wealth of experience in plant breeding and related activities arising from several roles she has held in Australia and internationally in the seed industry including positions as Supply Innovation Lead with the Climate Corporation - Monsanto's digital agricultural flagship, Global Trait Integration Breeding Lead for Monsanto.

T 02 6166 4500 E Nicole.Jensen@grdc.com.au

T +61 8 8198 8407

P Grains Research and Development Corporation (GRDC) | Level 1 | 187 Fullarton Road, Dulwich 5065, South Australia

KEY CONTACTS



SOUTHERN REGION

ADELAIDE

Level 1
187 Fullarton Road
DULWICH SA 5065

P: +61 8 8198 8400
southern@grdc.com.au

OPERATIONS GROUP



SENIOR REGIONAL MANAGER

Craig Ruchs
Craig.Ruchs@grdc.com.au
M: +61 4 7771 0813

BUSINESS SUPPORT TEAM LEADER

Amanda Kendall
Amanda.Kendall@grdc.com.au
P: +61 8 8198 8402

CONTRACT AND TEAM ADMINISTRATOR

Claire West
Claire.West@grdc.com.au
P: +61 8 8198 8401

CONTRACT ADMINISTRATOR

Mark Waterhouse
Mark.Waterhouse@grdc.com.au
P: +61 8 8198 8406

APPLIED RESEARCH AND DEVELOPMENT GROUP



MANAGER AGRONOMY, SOILS, NUTRITION AND FARMING SYSTEMS

Stephen Loss
Stephen.Loss@grdc.com.au
M: +61 4 0841 2453

MANAGER AGRONOMY, SOILS, NUTRITION AND FARMING SYSTEMS

Allison Pearson
Allison.Pearson@grdc.com.au
M: +61 4 1887 4748

MANAGER WEEDS (NATIONAL)

Jason Emms
Jason.Emms@grdc.com.au
M: +61 4 3954 9950

CROP PROTECTION MANAGER SOUTH

Ruth Peek
Ruth.Peek@grdc.com.au
M: +61 4 5553 4040

GENETICS AND ENABLING TECHNOLOGIES GROUP



SENIOR MANAGER ENABLING TECHNOLOGIES

Tom Giles
Tom.Giles@grdc.com.au
M: +61 4 1788 9860

SENIOR MANAGER NATIONAL VARIETY TRIALS

Sean Coffey
Sean.Coffey@grdc.com.au
M: +61 4 2865 2226

MANAGER NATIONAL VARIETY TRIALS SOUTH

Rob Wheeler
Rob.Wheeler@grdc.com.au
M: +61 4 0114 8935

MANAGER NATIONAL VARIETY TRIALS SYSTEMS

Neale Sutton
Neale.Sutton@grdc.com.au
M: +61 4 3857 9992

MANAGER RESEARCH PLATFORMS

Trevor Garnett
Trevor.Garnett@grdc.com.au
M: +61 4 5790 6770

NATIONAL VARIETY TRIALS OFFICER

Ben O'Connor
Ben.O'Connor@grdc.com.au
M: +61 4 9988 7749

CONTRACT ADMINISTRATOR

Cindy Hall
Cindy.Hall@grdc.com.au
P: +61 8 8198 8407

GROWER EXTENSION AND COMMUNICATIONS GROUP



GROWER RELATIONS MANAGER

Courtney Ramsey
Courtney.Ramsey@grdc.com.au
M: +61 4 2827 4018

GROWER RELATIONS MANAGER

Randall Wilksch
Randall.Wilksch@grdc.com.au
M: +61 4 3776 9098

GROWER RELATIONS MANAGER

Tom Blake
Tom.Blake@grdc.com.au
M: +61 4 1889 3186

COMMUNICATIONS MANAGER

Sharon Watt
Sharon.Watt@grdc.com.au
M: +61 4 0967 5100

BUSINESS AND COMMERCIAL GROUP



ACTING GM – BUSINESS DEVELOPMENT AND ECONOMICS GROUP

Ron Osmond
Ron.Osmond@grdc.com.au
M: +61 4 000 2640

MANAGER COMMERCIALISATION

Fernando Felquer
Fernando.Felquer@grdc.com.au
M: +61 4 1351 1412

TOP 10 TIPS

FOR REDUCING SPRAY DRIFT

01

Choose all products in the tank mix carefully, which includes the choice of active ingredient, the formulation type and the adjuvant used.

02

Understand how product uptake and translocation may impact on coverage requirements for the target. Read the label and technical literature for guidance on spray quality, buffer (no-spray) zones and wind speed requirements.

03

Select the coarsest spray quality that will provide an acceptable level of control. Be prepared to increase application volumes when coarser spray qualities are used, or when the delta T value approaches 10 to 12. Use water-sensitive paper and the Snapcard app to assess the impact of coarser spray qualities on coverage at the target.

04

Always expect that surface temperature inversions will form later in the day, as sunset approaches, and that they are likely to persist overnight and beyond sunrise on many occasions. If the spray operator cannot determine that an inversion is not present, spraying should NOT occur.

05

Use weather forecasting information to plan the application. BoM meteograms and forecasting websites can provide information on likely wind speed and direction for 5 to 7 days in advance of the intended day of spraying. Indications of the likely presence of a hazardous surface inversion include: variation between maximum and minimum daily temperatures are greater than 5°C, delta T values are below 2 and low overnight wind speeds (less than 11km/h).

06

Only start spraying after the sun has risen more than 20 degrees above the horizon and the wind speed has been above 4 to 5km/h for more than 20 to 30 minutes, with a clear direction that is away from adjacent sensitive areas.

07

Higher booms increase drift. Set the boom height to achieve double overlap of the spray pattern, with a 110-degree nozzle using a 50cm nozzle spacing (this is 50cm above the top of the stubble or crop canopy). Boom height and stability are critical. Use height control systems for wider booms or reduce the spraying speed to maintain boom height. An increase in boom height from 50 to 70cm above the target can increase drift fourfold.

08

Avoid high spraying speeds, particularly when ground cover is minimal. Spraying speeds more than 16 to 18km/h with trailing rigs and more than 20 to 22km/h with self-propelled sprayers greatly increase losses due to effects at the nozzle and the aerodynamics of the machine.

09

Be prepared to leave unsprayed buffers when the label requires, or when the wind direction is towards sensitive areas. Always refer to the spray drift restraints on the product label.

10

Continually monitor the conditions at the site of application. Where wind direction is a concern move operations to another paddock. Always stop spraying if the weather conditions become unfavourable. Always record the date, start and finish times, wind direction and speed, temperature and relative humidity, product(s) and rate(s), nozzle details and spray system pressure for every tank load. Plus any additional record keeping requirements according to the label.



Acknowledgements

The ORM team would like to thank those who have contributed to the successful staging of the Swan Hill and Bendigo GRDC Farm Business Update:

- The local GRDC Farm Business Update planning committee including both government and private consultants and GRDC representatives.





Prefer to provide your feedback electronically or 'as you go'? The electronic evaluation form can be accessed by typing the URL address below into your internet browsers:

www.surveymonkey.com/r/Vic-FBU

To make the process as easy as possible, please follow these points:

- Complete the survey on one device
- One person per device
- You can start and stop the survey whenever you choose, **just click 'Next' to save responses before exiting the survey.** For example, after a session you can complete the relevant questions and then re-access the survey following other sessions.



2020 Swan Hill & Bendigo GRDC Farm Business Updates Evaluation

1. Name

ORM and/or GRDC have the permission to follow me up in regards to post event outcomes.

2. Location of Update

Swan Hill Bendigo

3. How would you describe your main role? (choose one only)

Grower Grain marketing Student
 Agronomic adviser Farm input/service provider Other* (please specify)
 Farm business adviser Banking
 Financial adviser Accountant
 Communications/extension Researcher

Your feedback Please rate each presentation you attended in terms of relevance and quality
(10 = totally satisfactory, 0 = totally unsatisfactory).

4. A sound succession strategy could be the best investment you make: *Rob Brown*

Content relevance /10 Presentation quality /10

Have you got any comments on the content or quality of the presentation?

5. 7 management practices to develop effective employees: *Sally Murfet*

Content relevance /10 Presentation quality /10

Have you got any comments on the content or quality of the presentation?

6. Managing a farm team – a grower’s perspective: *Lauchie Cole*

Content relevance /10 Presentation quality /10

Have you got any comments on the content or quality of the presentation?

7. What is your stubble worth?: *Dean Thomas*

Content relevance /10 Presentation quality /10

Have you got any comments on the content or quality of the presentation?

8. Is the profit worth the risk? Assessing your enterprise mix: *Cam Nicholson*

Content relevance /10 Presentation quality /10

Have you got any comments on the content or quality of the presentation?



9. Integrated cropping and livestock – what works, what doesn't? A grower's perspective: *Tim McClelland*

Content relevance /10

Presentation quality /10

Have you got any comments on the content or quality of the presentation?

10. A profit first approach to precision agriculture: *Royce Pitchford*

Content relevance /10

Presentation quality /10

Have you got any comments on the content or quality of the presentation?

11. Why performance isn't always about the outcomes: *Nathan Burke*

Content relevance /10

Presentation quality /10

Have you got any comments on the content or quality of the presentation?

Your next steps

12. Please describe at least one new strategy you will undertake as a result of attending this Update event

13. What are the first steps you will take?

e.g. seek further information from a presenter, consider a new resource, talk to my network, start a trial in my business

Your feedback on the Update

14. This Update has increased my awareness and knowledge of farm business decision-making

Strongly agree

Agree

Neither agree
nor Disagree

Disagree

Strongly disagree

15. Do you have any comments or suggestions to improve the GRDC Update events?

16. Are there any subjects you would like covered in the next Update?

Thank you for your feedback.

