FARM TO PROFIT
FARM BUSINESS UPDATE

GRDC
GRAINS RESEARCH & DEVELOPMENT CORPORATION

Griffith

Tuesday 10th August, 2021

Coro Club
20-26 Harward Road,
Griffith NSW

#GRDCUpdates

2021 Griffith GRDC Farm Business Update planning committee

Richard Holznecht	GRDC Grower Relations Manager	**Andrew Bomm**	Progressive Agriculture
Toni Somes	GRDC Communications Manager North	**Michael Ryan**	Riverina Agriconsultants
Roy Hamilton	GRDC Northern Panel Member	**Andrew McFadyen**	McFadyen Ag Consulting
Lisa Castleman	Local Land Services NSW	**Jane Foster**	ORM
Iva Quarisa	IREC	**Belinda Cowburn**	ORM
Carmen Quade	Agrifocused		

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GRDC Farm Business Update proudly convened by ORM Pty Ltd.

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Program

9.30 am	**Announcements**	
9.35 am	**GRDC welcome**	
9.40 am	**Is 50% the new 70%? – exploring the role of equity in land acquisition**	***Brad Sewell,*** *Robinson Sewell*
10.20 am	**Effective and efficient office management**	***Carmen Quade,*** *Agrifocused*
11.00 am	***Morning tea***	
11.30 am	**WaterCan Profit – analysing water decisions across the seasons**	***Matthew Harrison,*** *University of Tasmania*
12.05 pm	**Labouring the point**	***Esther Petrie,*** *Agrifocused*
12.45 pm	***Lunch***	
1.45 pm	**Timing the leap into technology investment**	***Adrian Roles,*** *AgTrak*
2.30 pm	**Hitting the sweet spot with machinery investment**	***Michael Ryan,*** *Riverina Agriconsultants*
3.10 pm	***Wrap up and evaluation***	
3.15 pm	***Close***	

NORTHERN REGION*

PREDICTA® B

KNOW BEFORE YOU SOW

*NORTHERN NSW AND QUEENSLAND

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
- Root lesion nematodes
- Yellow leaf spot
- Common root rot
- Pythium clade f
- Charcoal rot
- Ascochyta blight of chickpea
- Sclerotinia stem rot
- Long fallow disorder
- Phytophthora root rot
- Fusarium stalk rot
- White grain disorder
- Sclerotinia stem rot

Government of South Australia
Primary Industries and Regions SA

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crown Analytical Services

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Is 50% the new 70%? For equity to debt ratio

Brad Sewell.

Robinson Sewell Partners.

Key Messages:

- Balance sheets remain dominated by property values.
- Values are driven by a reduction in arable land; the relative value of Australian land versus rest of world; and continued demand from existing farmers and new entrants.
- Banks are supportive of land acquisition if the historical and projected cashflow can service the additional debt.
- Equity can drop to circa 45-50% post land purchase with a return target of 65% within 3-5 years.
- 'Cashflow is King' in the bank credit assessment process.

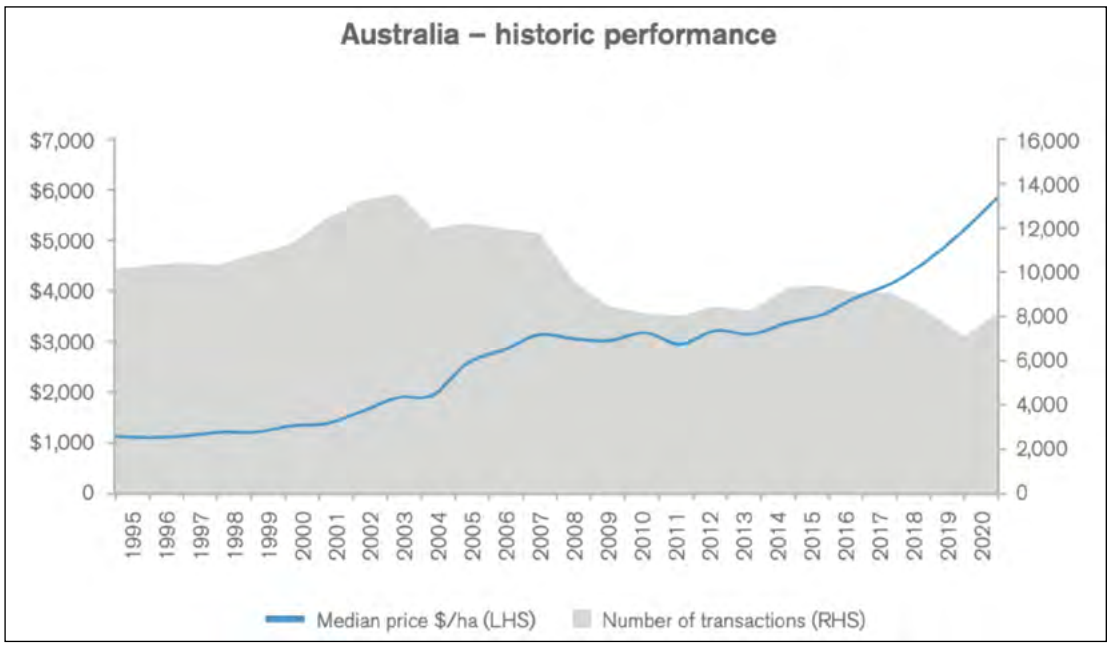

Figure 1. Australian median property prices and transactions 1995 to 2020 (Source: Rural Bank Australian Farmland Values Report 2021).

Introduction

Balance sheets have strengthened over history predominantly via land value appreciation as opposed to operating returns. Some of our clients spend as much time managing their asset base as they do their business enterprises due to the scale and value of the assets.

Rural land in Australia has a relatively consistent value appreciation of circa 8% per annum. Operating profit and losses as a percentage of land value can swing from -15% to +25%.

A sample of client balance sheets indicates that land makes up around 70% to 80% of total asset value. Upward land value movements have allowed for the leveraging of debt to buy more land at even higher prices. Which for the past 26 years has been underpinned by continued land price rises.

Background

The financial resilience to withstand poor seasons is underpinned by the equity in the farm business, represented by assets that can be realised or leveraged to provide cashflow support when it is needed. As an industry agriculture and particularly agricultural producers have higher levels of equity in their business compared with other industries. This provides a measure to support risk management against poor seasons. A single poor season will be withstood by drawing on resources within the business and support from lenders to meet the cashflow needs of the business. The higher the equity ratio in the business the more "poor seasons" it would reasonably be capable of withstanding.

Lenders have traditionally relied on the value of farming land to provide ongoing financial support to farming business when it was required. With the recent steep appreciation in land values over the past 18 months land acquisitions have utilised leverage and gearing to fund the acquisitions. It would be reasonable to suggest that the lenders are taking a pragmatic approach to the rapid appreciation in values and will apply a level of conservatism to the current market values. Where we might see 50% equity at the current land values a lender may take a more conservative measure in the value ascribed to land on a per hectare basis which would translate to a lower equity ratio in their analysis. Further the future rate of increase in land prices holds a significant level of uncertainty when compared against the rapid appreciation of the past 24 months. This uncertainty could feed into further caution by lenders in their approach to gearing within farm business over the short to medium term.

There seems to be a system in banking where cashflows can be based on historical long term average seasonal conditions and commodity prices and in the event of a 'hiccup' in the season and/or prices, the banks have established systems in place to support customers. The trick for borrowers is to remain within the band that allows the bank to provide support during difficult times. Falling outside the band is like being the wildebeest at the back of the herd with a pride of lions in pursuit.

My follow up questions for the speaker;

Why working on this could be great for your farming business

- Treat land value appreciation as a wealth generator worthy of having its own management and growth strategy.
- Your ability to repay debt from cashflow is the key consideration for a bank. Your forecasts will be viewed through the lens of what your business and the industry has achieved historically, as well as the current seasonal conditions and commodity prices you are facing now.
- Excessive under or over forecasting the outcomes in your cashflow has negative implications for your ability to borrow.

Self-evaluation

What parts of your business do you spend most time thinking about?

Do you look at the accountant prepared profit and loss statements each year?

Are you comfortable and confident in preparing a cashflow forecast?

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

- Do a historical analysis of your assets and liabilities to see the trends in land values, debt, equity etc. Sometimes a growing net asset base can offset the cashflow 'blues' in a poor season.
- Ensure your cashflow forecasts align with current prices and your historical production (e.g. tonnes/ha crop yield; kg's/hd/wool). Consider using commodity prices more aligned with the ten-year average (for better or worse).

Our First Action _____

Our Second Action _____

Want to learn more, here are some suggestions:

- Keep attending seminars to continue learning and networking or listen to podcasts relating to business management principles.
- Communicate at all levels with your peers and mentors.
- Scour the internet for new domestic and international content.

References;

- Australian Farmland Values (2021) – Rural Bank Report

More about Brad . . .

Brad Sewell has over 18 years rural lending experience as a bank manager along with a further 12 years rural lending experience as an adviser to borrowers. Brad co-own 8,500 acres at Nyngan including 3,500 acres of farming country. Along with his interests in agriculture Brad's business ventures include co-ownership of a defence technology business in Brisbane along with other diverse business activities.

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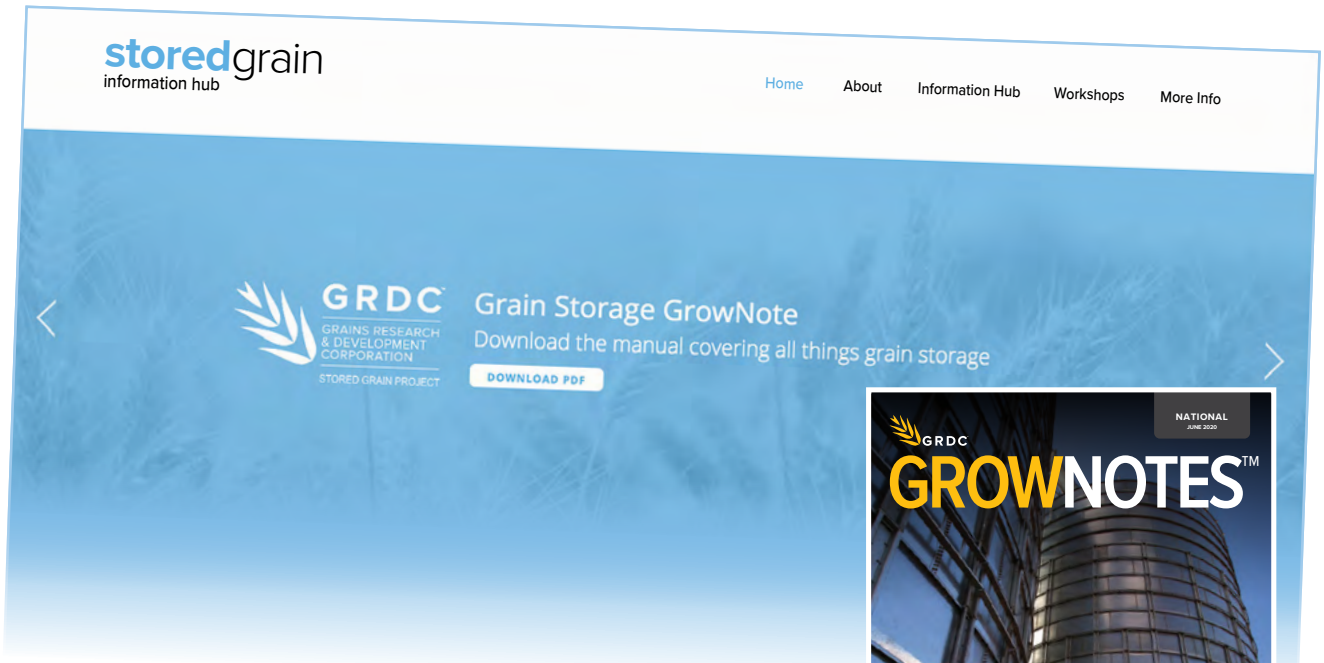
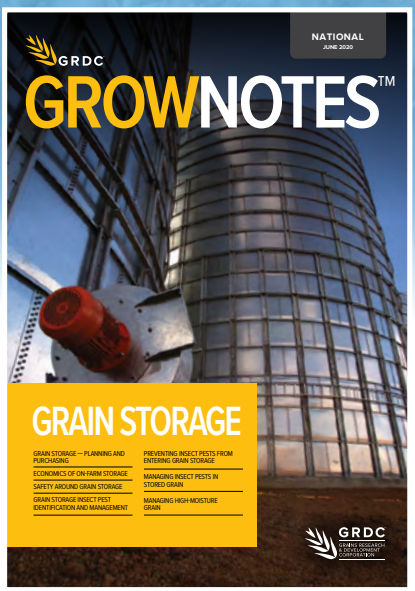
storedgrain.com.au





The complete manual for on-farm grain storage

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.

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Efficient and effective office management strategies

Katherine Colbert.

Partners in Ag.

Key Messages:

- Every farm business is unique, and the farm office is no different – finding best fit for systems and procedures for your situation is important
- Take a time audit on your day/s in the office – how/when do you work best?
- Going paperless? Start small and schedule time away from other office tasks to work on it
- The ATO has great resources for record keeping and compliance regulations.

Introduction

- **Effective use of time:** It is important to understand how you work most effectively. Spending a day auditing your time in the office will reveal how much of your day is procrastinating, interruptions and productive time. Break your time into 15- or 30-minute increments (using your phone alarm, countdown timer) and take notes of what you are doing at every interval.
- **Roadblocks to productivity:** You will encounter productivity roadblocks during your time in the office. There are several strategies you can implement to reduce these roadblocks, including removing notifications and distractions from the office, scheduling your day the night before and prioritising your tasks using the Eisenhower Matrix.
- **Paper filing systems:** There is no one size fits all, so your paper filing system must be functional for you and your business. Your system needs to be consistent, particularly when using your naming and numbering structures.

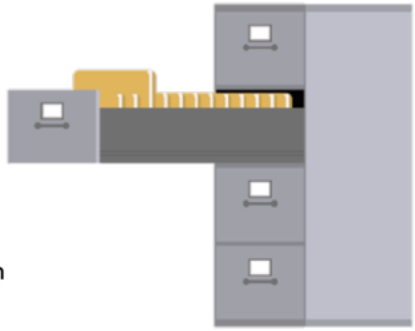
- **Going paperless:** If you are just starting out, make it easy and do-little bits at a time. Start with four folders – add as many sub-folders as you need.
- **Record keeping and compliance:** The same record-keeping principles and practices apply, regardless of whether you use paper or paperless systems. Ensure your processes meet the ATO requirements.

Content

Filing Systems

An effective filing system is:

- ✓ Simple
- ✓ easy to file information
- ✓ easy to find information
- ✓ easy for someone else to use
- ✓ suits your business and facilities
- ✓ relevant to your style of farming
- ✓ easy to expand without dismantling the current system



Once you're comfortable with the functionality of your filing system, print out a copy of the file structure and laminate it and tape to side of filing cabinet for easy referral

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An example of a filing cabinet system

				Filing Cabinet
2.	TECHNICAL (Physical)			
2.1	Animal Health	2.1.1	Sheep	Top Drawer
		2.1.2	Cattle	"
2.2	Animal Nutrition	2.2.1	Sheep	"
		2.2.2	Cattle	"
2.3	Animal Breeding	2.3.1	Sheep	"
		2.3.3	Cattle	"
2.4	Soils and Fertilizer			"
2.5	Fencing and Yards			"
2.6	Water Supply			"
2.7	Farm Maps			"
2.8	Crops	2.8.1	Wheat	"
		2.8.2	Barley	"
		2.8.3	Lupins	"
2.9	Chemicals	2.9.1	Technical Notes - MSDs	"
2.10	Wool	2.10.1	Technical Notes	"
		2.10.2	Shearing Stationery	"
4.	INSURANCE AND ASSURANCE			
4.1	Correspondence, Quotes			Middle Drawer
4.2	Policy Documents			
		4.2.1	Life Assurance	Middle Drawer
		4.2.2	Superannuation	"
		4.2.3	Personal Sickness / Accident	"
		4.2.4	Public Liability	"
		4.2.5	Workers Compensation	"
		4.2.6	Crop Insurance	"
4.3	Claims			"

3.	ESTATE PLANNING & LEGAL		
3.1	Correspondence		Middle Drawer
3.2	Agreements/Deeds etc		
		3.2.1	Companies etc* Middle Drawer
		3.2.2	Leasing* "
		3.2.3	Trusts* "
		3.2.4	Land Titles* "
		3.2.5	HP Agreements* "
		3.2.6	Mortgage Agreements* "
		3.2.7	Bills of Sale* "
		3.2.8	Informal Agreements "
3.3	Wills* and Executors		"
3.4	Valuations		"
3.5	Contracts*		"
3.6	Birth/Marriage/Death Certificates*		"
3.7	Registration of Brands		"

*** Items marked with an asterisk should be kept in a secure place and photocopies retained in the filing system**

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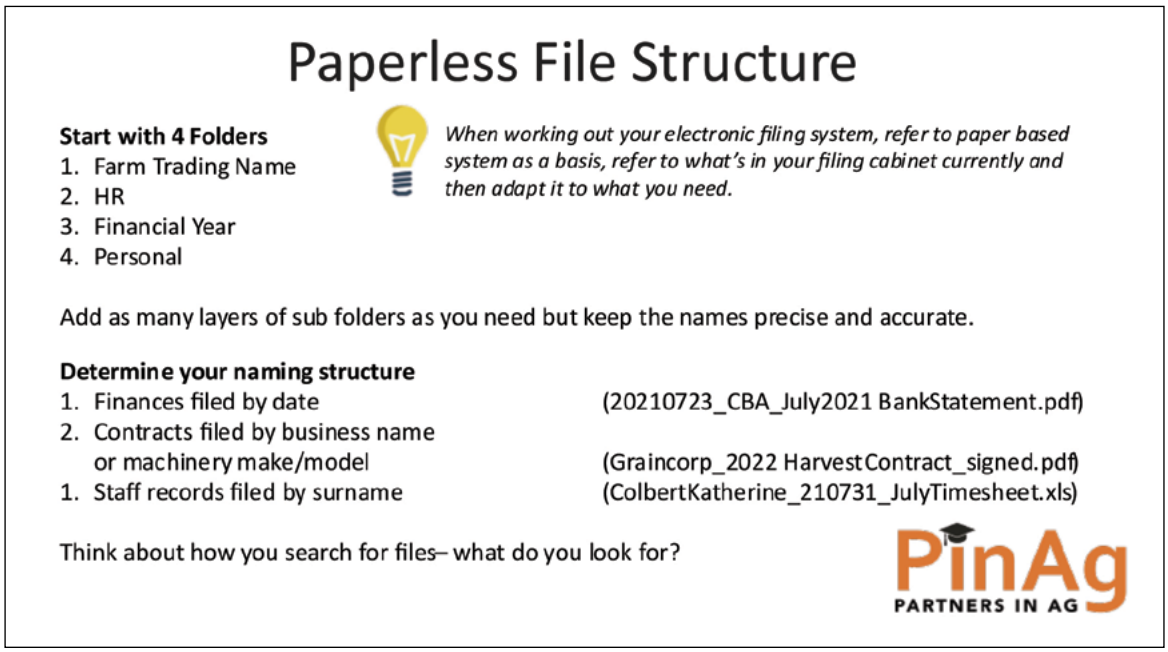
My follow up questions for the speaker;



Why working on this could be great for your farming business

- More effective use of your time in the office
- Less time in the office and more time in the yards and with your family
- Confidence to commence or continue towards a Paperless Office

Self-evaluation

Do you dread your time in the office, or do you put it off every month?

Is that stack of paperwork on your desk getting bigger? Your email inbox out of control?

Want to go paperless, but not sure where to start?

If you weren't available, could someone easily find what they're looking for in your filing system?

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

- Time Management Audit – How and when do you work best? Restructure your day around this
- Streamline your processes utilising technology, apps and go paperless
- Book a workshop with Partners in Ag!

Want to learn more, here are some suggestions;

- ATO website, webinars and podcasts on effective record keeping (https://www.ato.gov.au/Business/Record-keeping-for-business/)

References and/or acknowledgements;

- GRDC – funding the original workshop ‘Farm Office Efficiencies’ and ‘Office Sanity’
- Eisenhower’s Matrix

More about Katherine . . .

Katherine is the Business Development Officer for Partners in Ag, delivering quality professional learning opportunities to farmers and rural communities in a range of topics such as farm safety, succession planning, financial management and office management.

Katherine has over 13 years’ experience in marketing, advertising, and project management and business planning in both the public and private sectors and is passionate about sharing her knowledge and skills with the agriculture industry.

A self-confessed list-maker, Katherine holds positions on several local and regional boards and committees across sport and health-related organisations. Living in Nhill in the Wimmera with her husband and son, Katherine enjoys helping on the mixed-enterprise family farm both in the yards and in the office – wherever she’s needed at the time!

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TOP 10 TIPS

FOR REDUCING SPRAY DRIFT

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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.

WaterCan Profit: more profit per megalitre of irrigation

Matthew Harrison.

Tasmanian Institute of Agriculture, University of Tasmania.

Key Messages:

- WaterCan Profit is a free, online calculator designed with and for Australian irrigated crop farmers.
- WaterCan Profit helps people decide what crops to sow, how much water to apply, how profit varies with water and grain price, and what types of irrigation infrastructure are more profitable for their farm.
- WaterCan Profit can be adapted to any grains farm, regardless of soil or climate type, or farming system.

Introduction

WaterCan Profit is a simple economic calculator designed to help farmers maximise either $/ha or $/ML.

There has been little previous effort put into comparisons of irrigation infrastructure investment. WaterCan Profit is designed to calculate payback time and future wealth generated from a range of irrigation infrastructure options (e.g., surface, drip, overhead lateral, pivot).

The WaterCan Profit calculator helps users systemically compare the profitability of irrigated and rainfed crops, accounting for variable grain and water prices, costs, water use and seasonal climatic outlook. Users can enter any crop or soil type. Long-term rainfall and seasonal climatic conditions are also considered.

The calculator is not designed for within-season irrigation scheduling (how much irrigation to apply within season) but is intended to aid crop sowing choices at the start of the cropping season. Risk and uncertainty in markets and climatic conditions are accounted for in the interface.

This presentation demonstrates the free calculator, WaterCan Profit.

Why working on this could be beneficial for your farming business

Planning and analysing your water investment with the WaterCan Profit tool could contribute to:

- improved profitability of irrigated crops.
- informed decision making, for example:
  - Should you be focussing on $/ha, $/ML or total dollars?
  - At what point should irrigation farmers become water traders? What is the water price at which growers should NOT irrigate crops?
- a framework for analysis. That is, a short time invested in methodical planning of your cropping and irrigation decisions (around ten minutes), could result in additional returns (potentially thousands of dollars).

My follow up questions for the speaker;

Self-evaluation

As a farm business, how do you rate your planning and decision making out of ten in the following areas? 1 being the lowest score (performance is poor) and ten being the highest (performance is excellent) – 5 would represent rating yourself as adequate with opportunity for improvement.

	1	2	3	4	5	6	7	8	9	10
Deciding what crops to sow in any given year										
Deciding what crops should be irrigated, and										
Deciding how much water should be applied										

Have you ever considered comparing the returns on your current irrigation infrastructure with that of a different irrigation system? Y / N

List any key areas for review in your Farm Business

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

- For more information review the GRDC Update paper and/or YouTube videos detailed in the next section.
- For a free demonstration of the WaterCan Profit calculator or to request access, email Matt at the contact details provided.
- Examine your current system using the WaterCan Profit calculator, are there opportunities for improving profitability?

Our First Action

Our Second Action

Want to learn more, here are some suggestions:

- For more detailed case studies read the July 2020 GRDC update paper, 'Optimising use of limited irrigation water on grain crops'

https://grdc.com.au/resources-and-publications/grdc-update-papers/tab-content/grdc-update-papers/2020/07/optimising-use-of-limited-irrigation-water-on-grain-crops-getting-the-biggest-bang-per-megalitre

- Watch the YouTube videos:
  - WaterCan Profit overview
  - Simple methods for increasing profitability
  - Whole farm planning
  - Irrigation infrastructure investment
- Help with the WaterCan Profit tool is available. Contact matthew.harrison@utas.edu.au for a free personalised demonstration. New users and feedback on the interface are welcome.
- A PDF of slides from this presentation can be provided to you on request of ORM.

Acknowledgements

We thank the GRDC for funding the Optimising Irrigated Grains RD&E programme. We also thank our partners Southern Growers Inc, the University of Queensland, SARDI and CSIRO and we thank the farmers, agronomists and ag-tech developers for their input on the calculator to date.

More about Matt . . .

Associate Professor Matthew Harrison is based at the Tasmanian Institute of Agriculture. Matt has more than 20 years' experience in co-designing sustainable solutions with farmers, service providers and the agricultural sector more broadly. He has been internationally recognised for his work on climate change adaptation and agricultural sustainability by the IPCC and the Australian Academy of Science.

Matt's team develop systems-based solutions that account for both technological aspects and interactions between crops and soils as influenced by management and climate. Much of this work centres on reducing risk and improving economic resilience.

Fundamental to the team is the development of mobile apps, decision-support tools and disruptive technologies; these innovations are designed with and for farmers, agronomists and other agricultural stakeholders. These technologies reduce farm costs, improve the timeliness of farm management, improve soil carbon and aid whole farm planning.

Matt leads GRDC-funded research to raise the profitability of irrigated cropping systems across Australia by helping people make more strategic decisions on crop selection, use (or disuse) of irrigation, crop rotations and investment in irrigation infrastructure.

Matt is very interested in helping to improve the profitability and sustainability of the grain sector.

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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/FarmingTheBusinesseBook** for the Apple iTunes bookstore, and download the three modules and sync the eBooks to your iPad.

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Employer of choice? Or employer of last resort?

Rebecca Fing

House Paddock Training and Consulting

Key Messages:

- Business owners and managers who have clarity of direction, set and communicate realistic expectations and actively manage their team are those who are most likely to not only attract the cream of the crop, but also keep them!
- Employers of choice show the following five focus areas:
  1. Ensure business objectives and direction is crystal clear.
  2. Acknowledge the value of staff and that times have changed... and mould business accordingly!
  3. Have well thought-out workforce planning and recruiting processes.
  4. Provide a professional, compliant workplace.
  5. Actively manage their team... set expectations and communicate well!

Introduction

These days, good people are hard to find!

One of the most competitive elements in broadacre farming is attracting the right people and to attract the cream of the crop we need to be on our game. In addition, times have changed, and employees don't walk over hot coals for a job anymore. Employers need to meet the candidate in the middle or risk NOT attracting the right people.

It is essential that employers take a proactive approach to planning their workforce and recruiting quality staff. This includes ensuring the right people are in the right jobs and positions are well defined and appropriate. Once a team is assembled, no one can rest on their laurels! Meeting operational and legal compliance requirements is a requirement and running a professional and engaging operation is a must.

Business owners and managers who have clarity of direction, set and communicate realistic expectations and actively manage their team are those who are most likely to not only attract the cream of the crop, but also keep them!

Employers of choice

The top 5 focus areas of employers of choice:

1. Ensure business objectives and direction is crystal clear.
2. Acknowledge the value of staff and that times have changed... and mould business accordingly!
3. Have well thought-out workforce planning and recruiting processes.
4. Provide a professional, compliant workplace.
5. Actively manage their team... set expectations and communicate well!

This session will refine the key areas of focus and give you practical tips to develop and strengthen your business as an employer of choice.

My follow up questions for the speaker;

Why working on this could be great for your farming business

- Increased productivity due to consistent, engaged staff.
- Increased compliance and reduced business risk.
- Increased staff satisfaction and reduced owner/manager stress!

Self-evaluation

Is workforce planning a priority for you? Y / N

Why? / Why not? _____

What systems do you have in place to attract and retain staff? _____

As a farm business, how do you rate yourself out of ten in the following areas/

	1	2	3	4	5	6	7	8	9	10
Business objectives and direction is crystal clear										
Acknowledge the value of staff and that times have changed... and mould business accordingly!										
Have well thought-out workforce planning and recruiting processes										
Provide a professional, compliant workplace										
Actively manage your team... setting expectations and communicating well!										

What are your key areas for improvement? _____

How well is your business meeting legislative requirements in terms of staff management?

Not well _____ Very well

List any priority areas for review _____

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

- Ensure roles and responsibilities of individuals in your business are clearly defined.
- Review staff compliance and ensure legislative requirements are met.
- Prioritise workforce planning!

Our First Action _____

Our Second Action _____

Want to learn more, here are some suggestions;

- READ: Winning the War for Talent: how to attract and keep the people who make your business profitable, Mandy Johnson.
- www.peopleinag.com.au
- www.fairwork.gov.au

More about Rebecca . . .

Rebecca Fing of House Paddock Training and Consulting has been helping farming businesses provide a safer more productive work environment for over 15 years. Based in Goondiwindi, Rebecca provides WHS and HR consulting services to farmers and small business. Having been on over 600 farms from Emerald to the Adelaide Hills, Rebecca has seen it done well (and not so well!) and loves sharing what she has seen and learnt along the way.

Bec runs accredited and non-accredited training programs for HR & WHS for farmers and small businesses and she has recently launched an online delivery platform for WHS.

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0427 107 234
housepaddock@bigpond.com

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The WeedSmart Big 6

Weeding out herbicide resistance in winter & summer cropping systems.

The WeedSmart Big 6 provides practical ways for farmers to fight herbicide resistance.

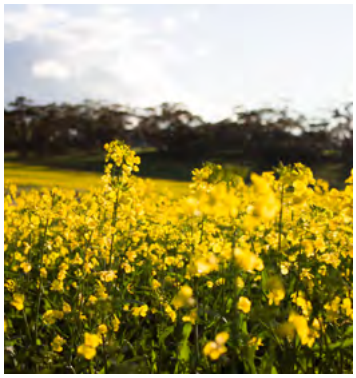
How many of the Big 6 are you doing on your farm?

We've weeded out the science into 6 simple messages which will help arm you in the war against weeds. By farming with diverse tactics, you can keep your herbicides working.

Rotate Crops & Pastures

Crop and pasture rotation is the recipe for diversity

- Use break crops and double break crops, fallow & pasture phases to drive the weed seed bank down,
- In summer cropping systems use diverse rotations of crops including cereals, pulses, cotton, oilseed crops, millets & fallows.



Mix & Rotate Herbicides

Rotating buys you time, mixing buys you shots.

- Rotate between herbicide groups,
- Mix different modes of action within the same herbicide mix or in consecutive applications,
- Always use full rates,
- In cotton systems, aim to target both grasses & broadleaf weeds using 2 non-glyphosate tactics in crop & 2 non-glyphosate tactics during the summer fallow & always remove any survivors (2 + 2 & 0).

Increase Crop Competition

Stay ahead of the pack

Adopt at least one competitive strategy (but two is better), including reduced row spacing, higher seeding rates, east-west sowing, early sowing, improving soil fertility & structure, precision seed placement, and competitive varieties.

Double Knock

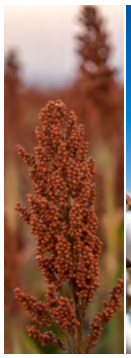
Preserve glyphosate and paraquat

- Incorporate multiple modes of action in the double knock, e.g. paraquat or glyphosate followed by paraquat + Group 14 (G) + pre-emergent herbicide
- Use two different weed control tactics (herbicide or non-herbicide) to control survivors.

Stop Weed Seed Set

Take no prisoners

- Aim for 100% control of weeds and diligently monitor for survivors in all post weed control inspections,
- Crop top or pre-harvest spray in crops to manage weedy paddocks,
- Consider hay or silage production, brown manure or long fallow in high-pressure situations,
- Spray top/spray fallow pasture prior to cropping phases to ensure a clean start to any seeding operation,
- Consider shielded spraying, optical spot spraying technology (OSST), targeted tillage, inter-row cultivation, chipping or spot spraying,
- Windrow (swath) to collect early shedding weed seed.



Implement Harvest Weed Seed Control

Capture weed seed survivors

Capture weed seed survivors at harvest using chaff lining, chaff tramlining/decking, chaff carts, narrow windrow burning, bale direct or weed seed impact mills.

WeedSmart Wisdom

Never cut the herbicide rate – always follow label directions
Spray well – choose correct nozzles, adjuvants, water rates and use reputable products,
Clean seed – don't seed resistant weeds,
Clean borders – avoid evolving resistance on fence lines,
Test – know your resistance levels,
'Come clean. Go clean' – don't let weeds hitch a ride with visitors & ensure good biosecurity.

Download our latest Harvest Weed Seed Control Cost Calculator on the HWSC page of the Big 6!

weedsmart.org.au/big-6

WEED smart
every weed every seed
every farm every year

COST OF HARVEST WEED SEED CONTROL CALCULATOR

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www.weedsmart.org.au

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- » 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?

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

http://bit.ly/LRZ-CTF

YOU'LL FIND:

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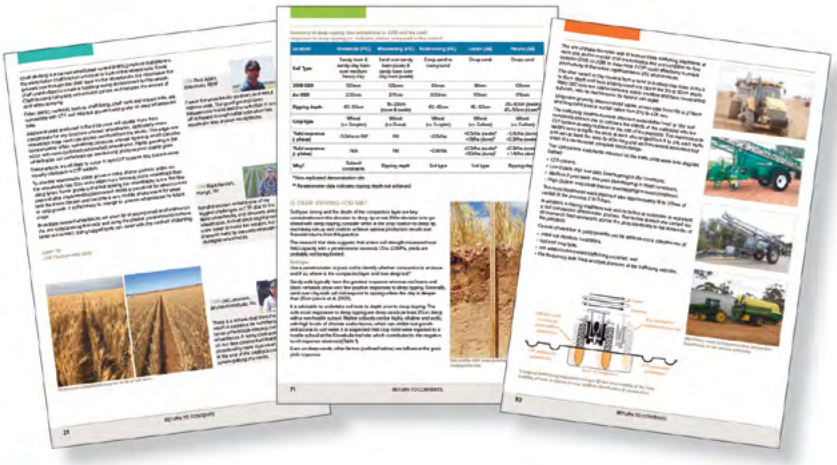
- » Research findings
- » Study investigations

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



Ag Technology Investment - early adopter or late to the party?

Adrian Roles.

AgTrak.

Key Messages:

- When making an investment in agricultural technology (ag tech) it is important that an analysis of investment be made. This analysis is best done in a whole-farm context as you would with any other agricultural investment.
- Analysis of ag tech investments should include the following considerations: environmental, professional satisfaction, social, obsolescence time frame, compatibility to existing and future ag tech, productivity, efficiency gains and economic gains.
- You should also consider investment in ag tech as a potential risk management tool in your farming business.
- It is also important to conduct your own research and analysis of ag tech products and services as information from ag tech providers tends to be inflated due to the use of generic and simplified economic analysis.

Introduction

Farmers are frequently challenged in being able to make informed decisions on when and what to invest in, when it comes to ag tech. This is because the profitability of ag tech will vary, not only farmer to farmer but also from paddock to paddock. The interoperability of a new ag tech purchase and the future obsolescence of any ag tech investment can also be difficult to determine. This can make assessing ag tech investments difficult, but with a little thought and work a farmer can determine the return and risk of investing in ag tech.

Content

Due to the difficulty in determining an accurate return on investment, it is important that farmers go through a proper decision-making process when considering investing in any new ag tech for their farming businesses.

The first question a farmer should ask themselves before investing in ag tech is, have I achieved a suitable level of return from my existing investments? This could be, have I maximised my returns on what I am already doing? Or could I improve on my current level of return, for example can I improve my agronomy? Is my operational timing good? Is my existing equipment and tech being used to its full capability? If the answer to these is yes, then a farmer may wish to look at further investments, possibly in ag tech.

When considering investing in ag tech a farmer also needs to ask themselves, does this ag tech support my goals and objectives for my business? If a farmer has not outlined the goals and objectives, they expect to achieve, it is important that they develop these before investing. An example could be, I have the goal of land stewardship through sustainable land practices to ensure future profitability for my farm business or I want to reduce summer weed escapes and increase spraying efficiencies. Whatever your goals or objectives are, if you think there is a potential ag tech investment that supports them, it is important to follow a logical decision-making process.

The key to making the most informed investment decision in ag tech is to use a logical process. Such as the seven-step process outlined below.

1) Identify the problem or opportunity.
2) Identify the alternative solutions.
3) Collect all data and information.
4) Analyse the alternatives and determine a decision.
5) Implement the decision.
6) Monitor the results.
7) Accept the responsibility for making the decision.

It is important to note that when evaluating ag tech for possible investment, steps 3 and 4 in the decision-making process can be the most challenging due to lack of independent and trustworthy sources of information and data. It is important to understand that most return-on-investment information on ag tech from agricultural tech providers is derived from generic simplified economic modelling.

Below are other non-economic considerations that a farmer may want to consider as part of step 3 and 4.

1. Interoperability: It is also Important to consider how any new ag tech investment will fit into existing machinery operations, hardware, and software.
2. Obsolescence: Most farmers realise that ag tech is changing at a rapid pace It is important to understand and plan for any ag tech investment becoming obsolete. By not planning for this a farmer may risk losing valuable time, data and encounter unforeseen expenses.
3. Risk management: Ag tech has the potential to be used for risk management. The main five risks that farmers face: production risk, price/market risk, legal risk, personal risk, and financial risk.

People: Is it an investment that will be professionally satisfying and rewarding to the investee? What is the learning curve with the new technology? A farmer's time is valuable, it can be costly to learn new ag tech and implement successfully.

Automated vs data intensive technology: Automated ag technologies, like auto section control or auto steer, if it meets a need can potentially have near immediate ROI and can be readily used by most farmers. Data intensive technologies, such as NDVI and yield data, require additional skills to be used effectively, resulting in hard to estimate the ROI.

Environmental and social: Ag tech may also have environmental and social benefits that are hard to quantify but worth considering.

When assessing ag tech investment, wide variations in outcomes are possible. This is due to many farmers and their farm businesses having different goals and objectives. The resulting return on ag tech investment by its nature are farmer specific, farm specific and paddock specific. For example, an ag tech investment may be economically profitable but may not align with business goals or be feasible to the

farmer, due to any of the above-mentioned considerations. Therefore, Investment in ag tech may require thinking deeper than a direct economic analysis of the ag tech investment to maximise the full benefits that an ag tech investment may offer.

Why working on this could be great for your farming business

- Potential increase in profitability.
- Improved management decisions.
- Professional satisfaction.
- Potential increased ability to manage risk.

Self-evaluation

Before investing in ag tech, have I fully utilised existing production and ag tech opportunities? _____

Do you have clearly defined goals you want to achieve by investing in ag tech? What are they? _____

Do I, or am I willing to invest or employ someone with skills and knowledge to manage and implement my ag tech investments?

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

- Review existing ag tech investments, align any new investment to your goals.
- Conduct an appropriate decision-making framework and analyse the ag tech for each unique circumstance and farm attribute.
- Use correct analysis techniques for ag tech investing such as net present value, internal rate of return, partial budgeting, or whole farm planning.

Want to learn more, here are some suggestions.

- Extension Aus Precision Agricultural community of practice. https://extensionaus.com.au/precisionag/home
- The economics of precision agriculture, GRDC Project code: RDP00013, https://grdc.com.au/resources-and-publications/grdc-update-papers/tab-content/grdc-update-papers/2017/02/the-economics-of-precision-agriculture
- Profit from precision agriculture, GRDC Project Code: 9176123, https://grdc.com.au/profit-for-precision-agriculture
- D.K. Shannon, D.E Clay, N.R Kitchens (2018) Precision Agriculture basics. *American Society of Agronomy*.
- B. Whelan and J.Taylor (2013) 'Precision agriculture for grain production systems'. (CSIRO publishing)

Our First Action _____

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Our Second Action _____

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References;

- D.K. Shannon, D.E Clay, and N.R Kitchens (2018) 'Precision Agriculture basics.' American Society of Agronomy.
- B. Whelan and J. Taylor (2013) 'Precision agriculture for grain production systems.' (CSIRO publishing)
- R. Kay, W. Edwards and P. Duffy (2004) 'Farm Management 5th ed'. (McGraw Hill publishing)
- C. Colins (2017) Microsoft excel: Ways to calculate a rate of return. https//www.journal of accountancy.com/issues/2017/feb/calculate-rate-of-return-in-excel.html.
- T.W. Griffin, J. Lowenberg-DeBoer, D.M. Lambert, J. Peone, T. Payne and S.G Daberkow (2004) Adoption, profitability and making better use of precision farm data. Dept of Agricultural economics, Purdue University, West Lafayette, IN

More about Adrian . . .

Adrian is a mixed farmer from Young NSW, growing canola, winter cereals, pasture production and merino sheep. Adrian has implemented precision agriculture on his own farm, while also assisting other farmers, agriculture supply industry and agriculture technology providers.

He has been involved with the supply and fitment of numerous precision agriculture related hardware and sensors. He has always endeavoured to ensure that there was practical use of precision agriculture equipment that resulted in a financial or agronomic gain to the farmer.

Adrian has written and delivered training course in precision agriculture for government, agriculture colleges and private industry. He is still actively involved in learning about new technology and techniques of precision agriculture with the goal of developing inventive training programs that will result in adoption of precision agriculture by farmers.

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Machinery investment: What works for your business?

Ben White

Kondinin Group

Key Messages:

- Every business is different, but benchmarks can help to provide perspective.
- Machinery investment levels are generally commensurate with cropping turnover.
- Ratios of seeding / spraying / harvesting machinery investment vary geographically.
- Machinery plant investment also needs to factor repairs and maintenance, skilled labour inputs and contracting relative to total cropping income.
- The national average benchmark for TPLM+C : Cropping income = 0.34

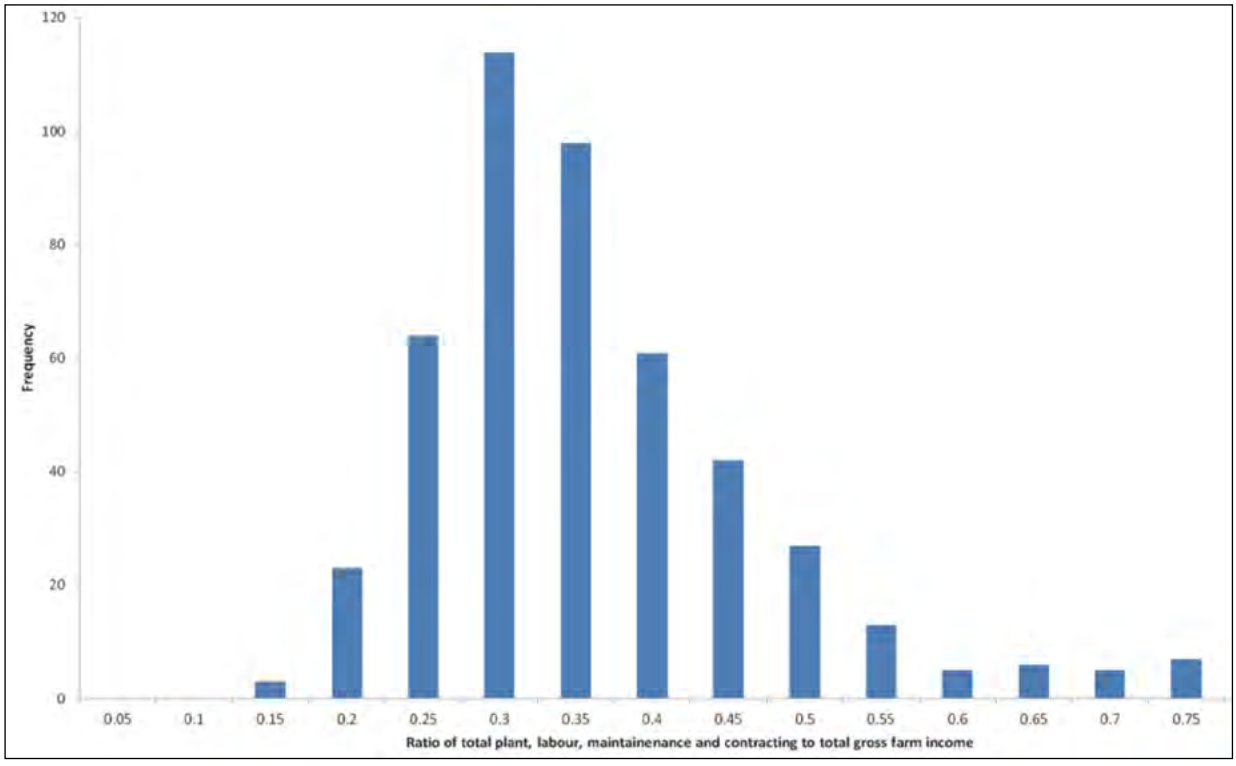

Figure 1. National frequency of ratios of total plant, labour, maintenance and contracting (TPLM+C) to total gross farm income in Australian cropping enterprises (National: n=411)

Introduction

Working with Cussons Media, Farmanco, Agripath and Pinion Advisory, Kondinin Group collated machinery ownership data from more than 400 farmers across Australia to gauge machinery investment levels relative to business turnover.

A booklet produced for GRDC contains thirty case studies to illustrate ownership models and change-over triggers as well as survey data for specific to cropping Agro-Ecological Zones (AEZ's).

Overview

Detailed financial figures and data from 480 farmers nationally was probed to provide a detailed analysis. This was combined with case studies of 30 farmers spread nationally and representative of the spectrum of data collected. Points to note include;

- Average cropping income by GRDC region varied from around $1.4m in the South to $2.4m in the West with the Northern region coming in at around $1.6m.
- Previous studies of machinery investment levels had not included farm labour, contracting, repairs and maintenance.

  Including these figures ensures the data are not skewed by investment in additional repairs and maintenance for older equipment, or additional skilled labour to operate lower cost and lower capacity equipment.
- A standard depreciation rate of 10 per cent was applied across equipment unless the fleet of equipment was very new. While this can vary over the lifetime of the machine, across the thousands of machines in the survey data, this depreciation figure is around the average according to farm management consultants.

When making machinery investment decisions, evaluate the financial impact the investment will have. For technology investments, work on the return on capital for the technology. Section control is a good example of where technology can pay for itself depending on individual circumstances.

For other equipment, maintain knowledge of current market values and utilise the known ratio of 0.34 investment to income to determine if your farm is undercapitalised or overcapitalised with farm machinery.

My follow up questions for the speaker;

Why working on this could be great for your farming business

- Machinery investment decisions are usually big decisions which take into account not just the financial implications, but also the maintenance, service and backup as well as human capital costs to the business.
- Comparing farm investments in machinery to other farms in the area can provide a perspective on relative machinery outlay and provide guidance for benchmark investment levels.
- Reading case studies of the approach other farmers take can be useful in making decisions.

Self-evaluation

Are you comfortable with your current levels of investment in machinery? Y / N

Why? / Why not? _____

Do you know your TPLM+C and average long term income figures? Y / N

- If yes, where do you sit relative to the national average investment ratio of 0.34?

  Below **Similar to** **Above**

- If no, and you want to work on this in your business, calculate your TPLM+C and see how it compares to the benchmark.

What machinery or technology can we invest in next to improve our business?

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

Answer the questions:

- What is the current market value of your machinery fleet?
- What is your total long term cropping income?
- Where do you sit relative to the 0.34 Investment : Income ratio?
- Is there technology available that will provide a financial benefit to your farm business?

Our First Action _____

Our Second Action _____

Want to learn more, here are some suggestions;

- Keep an eye out for the GRDC booklet on farm machinery investment that includes 30 case studies from across Australia.

Acknowledgements

Thanks to Primary Business, Farmanco, Agripath and Pinion advisory and Cussons media for their assistance. In addition to the 30 farmers who were interviewed, we would like to thank the 450 farmers who provided data for the study.

Useful resources

ORM (2016) GRDC Farm Business fact sheet: Western Region, Cost effective investment in machinery www.grdc.com.au/__data/assets/pdf_file/0014/231611/grdc_fs_costeffectiveinvestment_lr.pdf.pdf

DPIRD, Alexander and Hagan (2015) Machinery purchasing decision support for broadacre growers www.agric.wa.gov.au/sites/gateway/files/Machinery%20purchasing%20decisions%20support%20for%20broadacre%20growers.pdf

Mudge, B (2013) Analysing the economics of machinery purchases. GRDC Ground Cover, Iss 104. www.grdc.com.au/resources-and-publications/groundcover/gc104/analysing-the-economics-of-machinery-purchases

ORM. Patrick Redden (2013) Machinery replacement decisions. GRDC Ground Cover, Iss 105. www.grdc.com.au/resources-and-publications/groundcover/ground-cover-issue-105-july-august-2013/machinery-replacement-decisions

ORM (2013). GRDC Farm Business Management Fact Sheet: Southern Region, Farm Business Risk Profiles www.grdc.com.au/__data/assets/pdf_file/0023/170348/grdc_fs_fbm-attitude-capacity-for-risk_low-res-pdf.pdf.pdf

ORM (2014) GRDC Farm Business Management Fact Sheet: Southern Region, Machinery Investments and costs
www.grdc.com.au/__data/assets/pdf_file/0015/152412/grdc_fs_fbm-machinery-investment_low-res-pdf.pdf.pdf

Farmanco (2016) Profit Series 2015/16. Farmanco

Kirk, G (2013) How to farm profitably in the eastern wheatbelt. Planfarm

Iowa State University (2015), Estimating Farm Machinery Costs
www.extension.iastate.edu/agdm/crops/pdf/a3-29.pdf

Iowa State University (2015), Replacement Strategies for Farm Machinery
www.extension.iastate.edu/agdm/crops/html/a3-30.html

Herbert, A (2017) An International Benchmarking Comparison of Australian Crop Production and Profitability, Agrarian Management

Sands, R (2013) How is your Farming System Performing? Liebe Group, Farmanco

Sands, R (2014) Financial Ratios and Indicators – The Critical Numbers, Farmanco Management Consultants

Redden, P (2013) Dollar$ and ene, Ground Cover, July/August 2013 pg33, GRDC Research Code ORM00004

Mudge, B (2013) How much Machinery is too Much? Ground Cover, Iss 107, GRDC Research Code ORM00004

Alexander, T (2013) Farm Business Management, Ground Cover Supplement, Nov-Dec 2013 Iss 107

Langemeier, M (2014) Crop Machinery Benchmarks, Purdue Agricultural Economics Report, pg5

Edwards, W (2015) Replacement Strategies for Farm Machinery, Ag Decision Maker, 641-732-5574

White, B, Warrick, C, (2017) Machinery investment and replacement options for growers in the Kwinana West RCSN port zone
www.grdc.com.au/replacing-machinery

More about Ben . . .

Ben is an agricultural engineer, Kondinin Group's research manager and editor of Farming Ahead magazine and, as an independent consultant, is a member of the GRDC stored grain extension team.

Based in Western Australia, Ben comes from a family farm in the New England region of northern NSW. Since completing his engineering studies at the University of Southern Queensland, Toowoomba, Ben has worked predominantly for the Kondinin Group for over 20-years.

Ben has extensive experience in delivery of research and has expertise in the areas of farm machinery investment, sheep handling and livestock infrastructure, farming technology and communications, grain storage, precision farming, engine technology, harvesting, seeding and spraying equipment.

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Twitter: @1800weevil

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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

beyondblue
Depression. Anxiety.

Lifeline
13 11 14
www.lifeline.org.au

Lifeline 13 11 14

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*.

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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 spray coverage in the field, 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.

GRDC
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THE 2020-2022 GRDC NORTHERN REGIONAL PANEL

January 2021

GRDC
GRAINS RESEARCH & DEVELOPMENT CORPORATION

CHAIR - JOHN MINOGUE

Barmedman, NSW

John runs a mixed broadacre farming business and an agricultural consultancy, Agriculture and General Consulting, at Barmedman in south-west NSW. John is chair of the district council of the NSW Farmers' Association, sits on the grains committee of NSW Farmers' Assn and is a winner of the Central West Conservation Farmer of the Year award. His vast agricultural experience in central west NSW has given him a valuable insight into the long-term grains industry challenges.

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DEPUTY CHAIR - ARTHUR GEARON

Chinchilla, QLD

Arthur is a grain, cotton and beef producer near Chinchilla, Queensland. He has a business degree from the Queensland University of Technology in international business and management and has completed the Australian Institute of Company Directors course. He is a previous vice-president of AgForce Grains and has an extensive industry network throughout Queensland. Arthur believes technology and the ability to apply it across industry will be the key driver for economic growth in the grains industry.

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BRUCE WATSON

Parkes, NSW

Bruce and his family operate a 3400 ha family grain growing business near Parkes NSW, which produces a mixture of dryland winter cereals, pulses and oilseeds as well as summer dryland cereals, pulses and cotton grown on a 12m zero till CTF platform with full stubble retention. Bruce holds a Bachelor of Agricultural Economics from the University of Sydney and previously worked with PricewaterhouseCoopers in its Transfer Pricing practice. He was awarded a Nuffield Scholarship in 2009. Bruce is interested in both transformational or blue sky research and ensuring that existing research delivers profitability to grower's businesses.

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DR JO WHITE

Maryborough, QLD

Since 2017 Jo has been based in the Wide Bay Burnett Region and is a private consultant while also running her own protected cropping horticultural operation. Previously Jo was a researcher for over 15 years working for the Queensland Government and university institutions. She holds a PhD in sorghum plant pathology and has extensive experience in delivering research for the broadacre summer crops plant pathology program based in Toowoomba. Jo has a keen interest in developing and delivering on-ground practical research solutions to growers which improve productivity and profitability of their farms.

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ROY HAMILTON

Rand, NSW

Roy runs a 4400ha mixed family farming enterprise near Rand in NSW's Riverina with his wife Leanne and family. He was an early adopter of minimum till practices and direct drill and press wheel technology. His farming system comprises 80 per cent wheat, canola, barley, triticale, faba beans, while the remainder is under pasture running 1400 ewes and trade lambs. He has held roles on the south east NSW Regional Advisory Committee, the GRDC's southern region RCSN (now Grower Network) and was a founding committee member of the Riverine Plains farming systems group.

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PETER MCKENZIE

Quirindi, NSW

Peter operates a private agronomy consulting business based in Quirindi NSW. His main focus is supporting growers to achieve high economic returns via best practice production management. He is a passionate supporter of research and has been active in extending weed management research information to industry, particularly in central west NSW, is a former director of Conservation Farmers Inc. He is a former member of the north east Regional Advisory Committee and a participant in Northern Growers Alliance local research group on the Liverpool Plains.

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GRAHAM SPACKMAN

Formerly Emerald, QLD

Graham has been managing director of a private agricultural consultancy in Emerald, Queensland, for the past 30 years providing agronomic and farm business management advice in summer and winter crops in dryland and irrigated systems ranging from broadacre to mixed grain and grazing. For two decades he participated in GRDC and Department of Primary Industries-funded farming systems projects, particularly in the areas of weed management, soil fertility and adaption of agronomic practices for Central Queensland conditions. Graham is a chartered member of Ag Institute Australia and an Aust. Institute of Company Directors graduate. He has recently retired but remains actively interested in RD&E particularly in CQ.

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CHRIS CLYNE

Moree, NSW

Chris is a grain grower, who farms a broadacre property east of Moree, in northern NSW. His farming system rotation includes wheat, barley, chickpeas and sorghum. He has a Bachelor of Commerce and a Bachelor of Laws from the University of Sydney and worked as an investment banker in derivative structuring in Sydney and Hong Kong before returning home to Australia. Chris believes in the potential to increase farm profitability through data-based decision-making and is a supporter of investigating and developing higher value grain markets to provide profitable alternatives to traditional crops. Chris is an advocate of understanding and improving seasonal climate forecasting models and tools to effectively guide on-farm decisions.

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GEORGINA PENGILLEY

Tamworth, NSW

Originally from Tasmania Georgina was involved in her family's 8500ha irrigated and dryland mixed farming enterprise. Before moving to NSW in 2018 Georgina was Leader of Grains Research and Strategy and Senior Industry Development with the Tasmanian Institute of Agriculture. Today, she is a research leader with NSWDPI based in Tamworth. With a PhD in growing canola in low rainfall environments, Georgina currently oversees the department's investment in chickpea and durum wheat breeding, pulse and cereal quality and post-entry quarantine programs.

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ADAM TOMLINSON

Orange, NSW

Raised on a grain property near Moree in north western NSW, Adam has a Bachelor in Applied Science Crops and Rangelands and postgraduate qualifications in agribusiness. Over the last 20 years he has held senior positions in banking, agricultural research and advisory roles within Australia and internationally. He works in the finance sector in Orange and has a small-scale farming operation. Adam's expertise lies in providing strategic guidance to support the profitability and sustainable growth of a broad range of agribusinesses.

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- The local GRDC Farm Business Update planning committee.

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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/GriffithFBU

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.

2021 Griffith GRDC Farm Business Updates Feedback

1. Name

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

2. How would you describe your <u>main</u> role? *(choose one only)*

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

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

3. Is 50% the new 70%? – exploring the role of equity in land acquisition: *Brad Sewell*

Content relevance /10 Presentation quality /10

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

4. Effective and efficient office management: *Carmen Quade*

Content relevance /10 Presentation quality /10

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

5. WaterCan Profit – analysing water decisions across the seasons: Matthew Harrison

Content relevance /10 Presentation quality /10

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

6. Labouring the point: *Esther Petrie*

Content relevance /10 Presentation quality /10

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

7. Timing the leap into technology investment: *Adrian Roles*

Content relevance ☐ /10 Presentation quality ☐ /10

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

8. Hitting the sweet spot with machinery investment: *Michael Ryan*

Content relevance ☐ /10 Presentation quality ☐ /10

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

Your next steps

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

10. 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

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

Strongly agree	Agree	Neither agree nor Disagree	Disagree	Strongly disagree
❑	❑	❑	❑	❑

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

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

Thank you for your feedback.