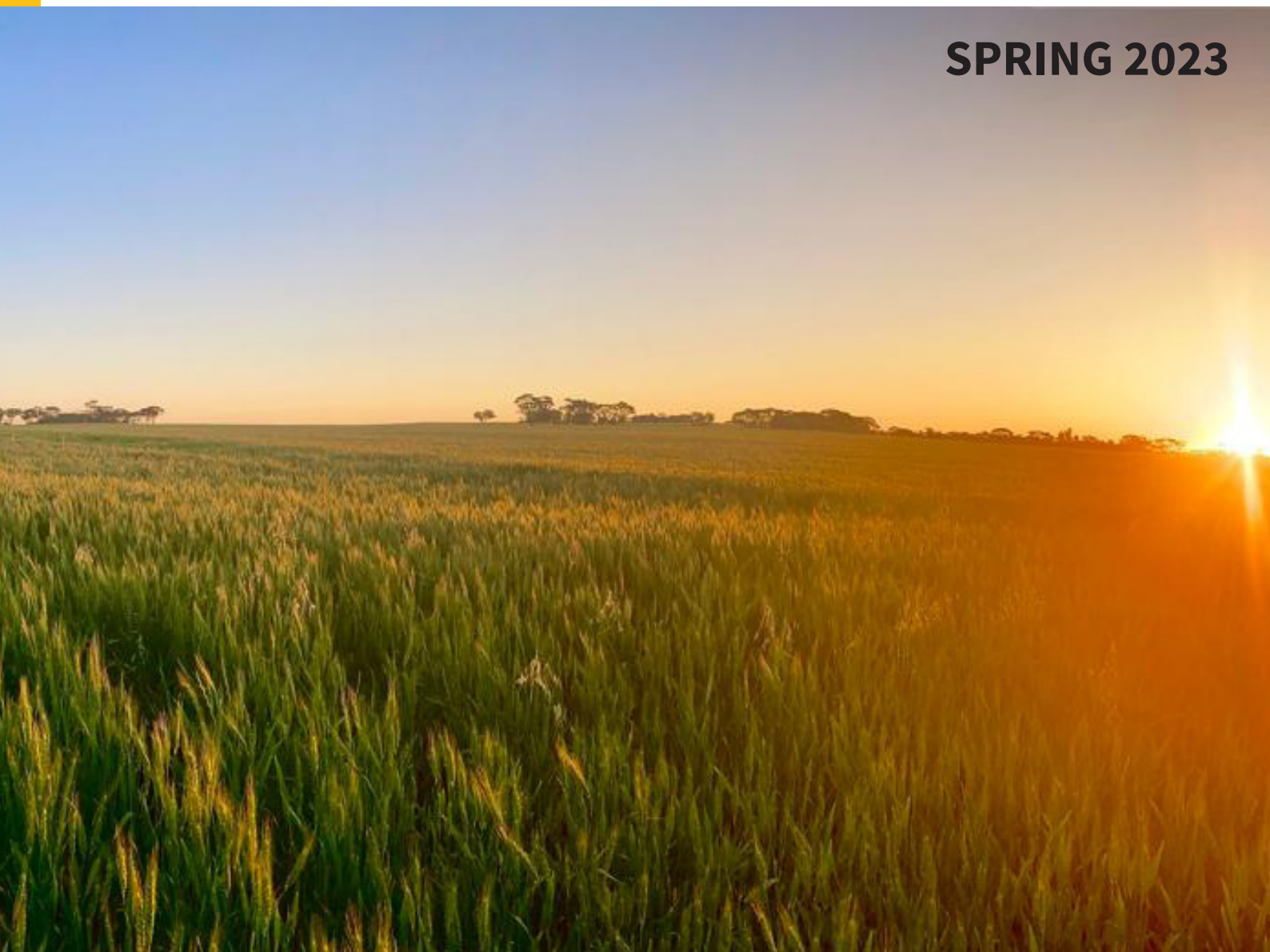


FACEY CONNECT

LEADING, INSPIRING, SUPPORTING AND CHALLENGING
OUR LOCAL FARMING COMMUNITY



SPRING 2023



**RISKWI\$E
CONFERENCE
IN SYDNEY**

**THE WA TALL
STUBBLE
STORY**

**HELP
AGRIMASTER
SUPPORT
RMHC WA**

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The Facey Group would like to acknowledge and thank our valued sponsors Agrimaster, Australian Grain Technologies, AWI, Bailiwick Legal, Carbon Sync, CRISP Wireless, CSBP, Elders Insurance, Elders Wickepin, Ewen Rural Supplies, Farm Weekly, FMC, Origo.Farm, Planfarm, and Tincurrin Rural Services.

A Note from the CEO

Welcome to my first official report as CEO of Facey Group, and I sincerely thank the Facey Committee (particularly President, Geoff Poultney), and the staff for their warm welcome and support.

My first priority has been to connect with members, trial partners, and new and old contacts in the sector to investigate where we can strategically position the Facey Group to focus its energies in line with the Facey Group strategic plan.

I know that while harvest kicks off soon, if not already, there will be good opportunities to meet with industry partners away from the farm and have a solid schedule of meetings planned over the next few months.

The other focus has been to be a sponge amongst our wonderful staff to understand their roles, challenges, frustrations, and opportunities, and get out into the field with our AGREC Team and trial partners. We are truly blessed to have such capable and skilled staff.

I am keen to evaluate our member engagement strategy and have been working on designing strategic events for members to build their knowledge, reward our members with a return on their investment, and lift the profile of the Facey Group. Stay tuned for updates on events that cover production and innovation topics as well as community events.

We have a large number of trials currently under management, and the team is working feverishly to progress our work towards our milestones, and in preparation for harvest. At the same time, I am having future-focused conversations with a range of organisations to position the group in an interesting operating environment. Between changing funder investment and prioritising landscapes, the effect of political cycles and eastern-centric drought policy on national priorities, and the dynamic nature of our WA producer's working environment, it is a complex but exciting time to be involved in agricultural research, development, adoption, and extension.

I wish you all a safe, fruitful, and relatively painless harvest period as we lead into the festive season, and I look forward to crossing paths with you all into the next year.



Chris Wyhoon, Facey Group Chief Executive Officer

AgREC Update

By Claire Wilcocks, Kaitlyn Anderson & Tina Astbury - Facey Group AGREC Team



What a busy few months it has been for the AGREC team at Facey Group. We have wrapped up our field days for the year with some great attendance and engagement at several field walks and at the Knee Deep in Sheep afternoon held at the Wickepin Community Centre.



Thank you to Helen Wyatt for doing disease assessments and other observations with our trials! Her experience and generosity with her time and knowledge helped us ensure our projects were progressing as expected and supported the AGREC team with building our knowledge base.

De-Risking the Seeding Program Conference

On the 27th and 28th of July, Agricultural Project Coordinator, Tina Astbury, attended a conference in Adelaide to launch 'De-Risking the Seeding Program'. This Federal Government, Future Drought Fund project will look at dry or early sowing opportunities that may support farmers in this region with their sowing program. Next year Facey Group will run two farmer demonstrations that can look at a range of aspects related to this issue.

Facey Group is looking forward to discussing the opportunity with our R&D Committee as we can choose to compare varieties, including newer long coleoptile varieties, change seeding depths or rate, or look at fertiliser placement, pre-emergents, or optimal soil moisture and nutrient levels. If you have some early sowing techniques or tips that have worked for you in the past, especially when there has been a late or a variable break, Facey Group would like to hear from you. Call Tina on 0415 804 628 or email apc@faceygroup.org.au

Defensive Driving Course

As the Facey Group team grows we are improving our skills to support the existing and incoming AGREC staff. The committee agreed that training in defensive driving would help new team members, particularly ones who haven't driven on country roads much in the past. Our AGREC team attended a one-day defensive driving course in early August. This included a practical component where everyone had to practice breaking as hard as possible on a gravel road to feel what full ABS braking feels like. There were also lots of great tips to ensure trips are well planned, vehicles are kept safe, and the team works together safely. Many of the tips and tricks will help in emergencies and while the course certainly made us think, we hope that these skills will not be required very often.

Knee Deep in Sheep Event

In August, Facey Group hosted the Knee Deep in Sheep Event which saw guest speakers from all over the state attend and present on a wide range of topics relevant to the sheep industry. Our members were informed on market updates and knowledge regarding on-farm tools such as the eIDs and confinement feeding.

It was great to see such a strong sheep community within our members and our region out in force at this event. As challenges continue to be faced by the sheep industry, we will continue to help and support our members in any way we can through R&D and information events.



AgREC Update Cont.



NVT's, Summit and Soft Wheat Trial Winter Field Walk

Summit Fertilizers hosted a brisk morning out in the paddocks for the Facey Group Winter Pop-Up Field Walk on Wednesday, 16th August. Attendees were able to view the National Variety Trials at this site for wheat and canola as well as the Summit trials which consist of the following three research areas:

P is Key: Phosphorus response in crops is not only related to the amount of phosphorus in the soil but also the soil's capacity to make that phosphorus available to the plant. Determining the relationship between Phosphorus Buffering Index (PBI) and optimal phosphorus application is being supported through this trial.

SOP Tolerance: Muriate of Potash (MOP) can cause high chloride concentrations and toxicity issues. In comparison, Sulphate of Potash (SOP) is much less risky. This trial demonstrates germination and seedling tolerance to high applications of SOP so producers can be confident of its safety.

N Products: A range of nitrogen products were also demonstrated including urease-inhibited urea. Improving the efficiency of applied fertilisers will support growers in current volatile markets.



Picture: Facey Group Members braving a cold morning to learn from the team at Summit Fertilizers.

Soil CRC Conference

While the team has been passionately organising and running relevant events for our Facey Group members, they have also been attending conferences and events to gain insights and knowledge in relevant areas that will benefit local farmers and our members. Facey Group AGREC, Kaitlyn Anderson, attended the Soil CRC Conference in Tasmania at the end of August to find out what is next on the soil science horizon.

The three days in Tasmania ignited a passion for soil science in Kaitlyn and indicated farmers in the Facey Group region are ahead of the game when it comes to fostering healthy living soils. There was a strong focus on soil microorganisms and plant benefits to soil health and it was reported scientists are working on new tools that will help farmers get in-field measurements on the state of their microbiology and soil health with up-and-coming technology such as the [Soil eNose](#).

AgREC Update Cont.

Murdoch Uni Ag Student Visit

On the 28th of August, Murdoch University Students currently studying Agricultural Science and Environmental Management visited Facey Group. The students met local grower, Committee Member and Facey Group Life Member, Audrey Bird, who hosted a Q&A session on Grower Groups, the history of Facey Group, and current challenges facing the industry. They were then taken to meet Dr Sarah Rich from CSIRO at the Long Coleoptile and the Saltbush and Novel Forage Understory Systems Trials. As well as being able to observe new agricultural research they were able to better understand how research groups such as CSIRO work in conjunction with local grower groups to ensure projects are well managed and meet the aims of local growers.

Next, the students were taken to the Wheat NVT, Soft Noodle Wheat, and Summit Fertilizers trials. This range of trials represents a statewide project funded through GRDC and managed by Living Farms, a sponsored trial established by the team at Summit Fertilizers, and finally, a sponsored trial set up by Facey Group and established by local farmers. Understanding the range of stakeholders that growers' groups work with as well as the broad range of research themes will help students better navigate their future careers.



Picture: Dr Sarah Rich from CSIRO guiding students through the Novel Forage Understory Systems Trial

The student's visit had a strong focus on how important it is to get out to farms and communicate with growers, see what they are up to, and witness the challenges they are experiencing as they progress through their studies and head into their careers. This opportunity provided a valuable learning experience on what grower groups do and the various career opportunities that are available in the Ag Sector.

Planfarm Site Visit

On a cold and windy morning on the 6th of September, Agricultural Project Coordinator and AGREC, Tina Astbury and Claire Willcocks, met with approximately 30 Planfarm Consultants as part of their very busy annual conference. We visited the Long Coleoptile site and although the Project Lead, Dr Sarah Rich from CSIRO, was not able to be there, attendees were provided with detailed notes from Sarah on the trial to date, and we were able to compare vigour among seeding depths of different varieties.



Facey Group looks forward to sharing further information on this project with Planfarm, with interesting results being predicted at harvest. The legumes planted at that site were thriving irrespective of sowing depth, which demonstrated that legumes can be a good choice if a producer wants to sow deeper. It was also great to hear from Planfarm Consultants in other agricultural areas that regularly grow lentils and chickpeas.

Picture: Planfarm Consultants comparing establishment of wheat varieties at different sowing depths.

AgREC Update Cont.

Spring Sown Cover Crop Trial

In 2022, Facey Group invested in reconditioning a trial-sized seeder so we can now sow our own trials. This year, the AGREC team rose to the challenge of mastering the art and science of operating our new trial seeder! I would like to extend our sincere thanks to Caen Taylor, Audrey Bird, and various other helpful people who supported us in seeding a spring-sown covercrop. This trial is part of the Facey Group RiskWi\$e Project that is aimed at supporting producers to make better nitrogen decisions. Facey Group continues to investigate the potential of summer crops to build nitrogen and soil health. This season's conditions may be more of a challenge to the establishment of a summer crop, and we are interested to see how soil moisture will change in comparison to a summer fallow.



Picture: Caen Taylor generously helping the AGREC team to operate the trial seeder

UWA Ridgefield Open Day

Agricultural Project Coordinator and AGREC, Tina Astbury and Kaitlyn Anderson, attend UWA's Ridgefield Experimental Farm Open Day near Pingelly on Friday, 13th of October. Among the interesting research projects, UWA Associate Professor Louise Barton presented the first year of her GRDC project to track



nitrogen losses. In Western Australia, the project will provide growers who manage cropping programs on the state's challenging sandy and texture-contrast soils with a more complete picture of nitrogen cycling and the conditions under which they might lose nitrogen from their soil. A fertiliser that has an isotope of nitrogen, ^{15}N , will be applied and tracked through the soil-plant system for three successive growing seasons. The trials will also measure denitrification or ammonia volatilisation, as is relevant to the local soil environment, and the leaching of nitrogen through the soil profile.

Picture: Mia Davies speaking at the Open Day

DPIRD Dale Research Field Day

On Wednesday, 11th of October, Agricultural Project Coordinator, Tina Astbury attended the DPIRD Dale Research Field Day and viewed projects aimed at managing frost. Interesting work is being conducted on defoliation, or pruning, of plants to delay crop development. This technique may be used to complement genetic strategies and is aimed at delaying and stabilising the flowering date across the crop. Another trial looked at the management of ice-nucleating bacteria within the crop canopy with wheat and barley crops. The final trial was crossbreeding chickpeas to improve frost tolerance.

Part of the AGREC's role is to attend these events and report back on any interesting findings. However, we nearly always have space in the car and would welcome sharing the journey with interested Facey Group members. Feel free to contact us if there is an event you would like to attend.

Member NEWS

RiskWi\$e: Supporting Facey Group Members to Balance Risk and Reward

It's been two months since our Agricultural Project Coordinator, Tina Astbury, attended the GRDC RiskWi\$e Conference in Sydney. RiskWi\$e, or the National Risk Management Initiative, is a GRDC and CSIRO 5-year national initiative that will run from 2023 to 2028. It seeks to understand and improve the risk-reward outcomes for Australian Grain Growers by supporting grower on-farm decision-making. Facey Group will be formally launching the project at this year's AGM to be held on Wednesday, 20th December 2023.

Facey Group is excited to be part of this project for three main reasons. The first is that it runs for five years, as a result, we will be able to follow trials and projects over multiple years and track longer-term changes. Improving soil health and structure is a slow process. Being able to track these changes on a longer scale will give farmers more certainty that their efforts are securing their farming future. Economic benefits are also not always realised through a single year in a specific paddock. A five-year project allows us to look at longer-term rotations and whole farm systems rather than quick economic snapshots.

The second reason this project is exciting from a Grower Group perspective is that Participatory Action Research (PAR) Groups are integral to this project. Throughout the project, Facey Group reports back to our members and discusses the results, this is known as Participatory Action Research. This will lead to further questions and guide our next season of trials. Facey Group is in a strong position to gain great feedback from the PAR Process as we have always had an engaged R&D Committee, and this will form the core of our PAR Group. Their feedback and interest in the initial stages of this project helped refine the critical issues within each theme.

Finally, the third reason this is an important project is the wide range of partners who are involved in this project. While the project is Australia-wide, in Western Australia the Grower Group Alliance (GGA) is coordinating the project as Action Research Group leads. UWA is also a significant research partner. The other Western Australian groups involved are Corrigin Farm Improvement Group (CFIG), Mingenew Irwin Group (MIG), South-East Premium Wheat Growers Association (SEPWA), Stirlings to Coast Farmers (SCF), The Liebe Group; Western Australian No-Tillage Farmers Association (WANTFA), and West Midlands Group (WMG). As our projects develop, having this level of technical support and other similar research to review will be a great asset.

All RiskWi\$e projects need to be considered within a range of themes that GRDC has identified. Facey Group have chosen to work within the themes of 'Nitrogen Decisions' and 'Sowing Decisions'. We will commence this process by reviewing current farming practices, recent Facey Group projects, and other sources of information. Dr Michael Young, an agricultural economist will review information on the two themes that will assist Facey Group and local producers to better understand the relationships between complex on-farm decisions as well as quality and profit outcomes.

Theme 1: The Nitrogen (N) Decisions theme will take a whole-of-system approach to help growers assess N decision strategies encompassing fertiliser and legume use.

Theme 2: The Sowing Decisions theme will develop long-term strategies to help determine sowing location, varietal selection, and sowing timing while considering landscape, farm, and paddock conditions.

Member NEWS

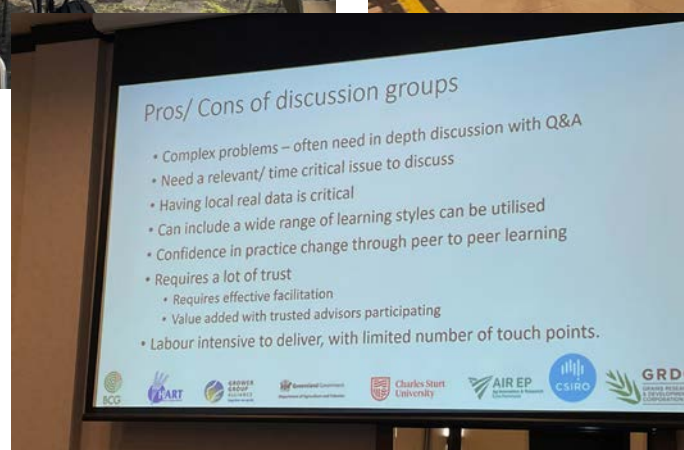
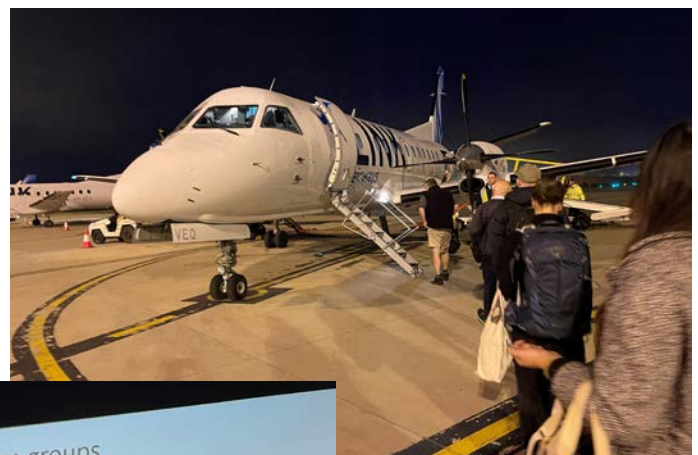
RiskWi\$e: Supporting Facey Group Members to Balance Risk and Reward - CONT...

Michael's work with the Nitrogen Decisions theme will be to collect baseline data from Facey Group members on key aspects regarding nitrogen such as rotation selection, time of nitrogen applications, amount of nitrogen applied, and other aspects. Facey Group will work with CBH to obtain the datasets and contract Michael to determine the scale and cost of N deficiency on protein grade and farmer profitability. The final part of the project is to use the baseline and grain quality data to scope and plan improved methodologies to calculate the optimum level of bagged nitrogen to apply and the costs and benefits of growing legumes in a rotation.

Michael will work with Facey Group on the Sowing Decision's theme to collect baseline information on key aspects of current sowing programs including rotations, time of sowing, and frost. This baseline data and available literature will support a preliminary analysis of the economic impact of frost within the region and the current management being employed by farmers (e.g. time of sowing). Available literature and models like the Agricultural Production Systems sIMulator (APSIM) may be used to supplement producer data. The final part of the project is to scope and plan improved methodologies to calculate the optimum time of sowing that maximises business profitability through improved synergies between growing season length, frost likelihood, and other interrelated aspects such as weed control and labour availability.

These valuable reviews of Facey Group projects and other data sources will support the PAR Group to make great decisions regarding the scope of future trial work. The RiskWi\$e Initiative has the target outcome of 80% of grain growers being able to articulate their production management decisions in terms of the probability of upside returns (reward) offset against the associated downside risks at the end of the five-year project. The goal for Facey Group will be to help our members balance risk and reward in their farming systems.

Watch this space for future updates on this exciting initiative!



Member NEWS

GRDC Harvester Set-Up Workshop Events

By Maree Dougall - Facey Group Innovation Coordinator



As harvest quickly approached, the completion of the five GRDC Harvester Set Up workshops were executed in a timely manner, with just under 500 attendees in total upskilling themselves at Hyden, Dunn Rock, Nyabing, Beverley, and Cunderdin.

Facey Group is the Western Region Coordinator for the GRDC-funded project – Harvest Set Up Workshop (Project Reference Number PRS2005-001SAX). This year the workshops included Independent Harvest Specialist, Murray Skayman, presenting alongside Peter Broley (Primary Sales), Peter Newman (Planfarm), Ben White (Kondinin Group), Brett Aspher (Independent Harvest Specialist) and Kassie van der Westerhuizen (Independent Harvest Specialist).

These experienced harvest specialists shared their incredible tips, tricks, knowledge & know-how on various brands, models and types of harvesters at each event. A huge thank you to the presenters as well as the host farms for all the hard work and kilometres travelled to bring this information face-to-face to the grain growers of WA.

As reported below in the Final Technical Results Report in 2023 Measuring Harvest Losses in the Western Region 2022/23 Season by the GGA, funded by the GRDC, the costs to the grower can be quite substantial if not addressed.

	Average of Front Losses (%)	Average of Machine Losses (%)	Value of Front losses (Av. \$ per grower)	Value of Machine losses (Av. \$ per grower)
Barley	1.80%	2.10%	\$8,930	\$9,990
Canola	2.10%	1.20%	\$18,130	\$10,196
Lupins	11%	1.40%	\$9,353	\$1,102
Oats	1.50%	3.60%	\$666	\$1,607
Wheat	1.00%	0.90%	\$13,056	\$11,598
TOTAL			\$50,135	\$34,493

Figure 1. The value of losses and where they occur for an “average” WA grower from the Final Technical Results Report 2023 Measuring Harvest Losses in the Western Region 2022/23 Season Project code: GGA2211-001SAX By Ben White and Daniel Kidd, 2023.

The full project report and results can be found at: https://www.gga.org.au/wp-content/uploads/2023/06/Final-Report_GGA2211-001SAX_Measuring-Harvest-Losses-in-the-Western-Region-2022-23-Season.pdf

The Facey Group will coordinate workshops again in 2024 and 2025 and will be hosting a workshop locally next year.

Member NEWS

GRDC Harvester Set-Up Workshop Events



ARE YOU A PASSIONATE WOMAN IN AGRICULTURE?

Are **YOU** ready to inspire fellow Women in Ag?



Want to drive the future of Women in Ag?



Facey Group are looking for **PASSIONATE, DRIVEN & INSPIRATIONAL** women to join our incredible Facey Group **WOMEN IN AG** Committee.

If you want to **MAKE A DIFFERENCE** & become an integral part of guiding & driving the direction of future Women in Ag events, workshops, & field walks, then consider joining to make your mark.

Contact Facey Group on 9888 1223 to find out more.

We want YOU on our WIA Committee!



Project Update

GRDC Stubble Height: Plant Available Soil Moisture at Sowing



By Hayley Hill - Yealering Local, final year of Agricultural Science Degree, Facey Group Work Placement Student

A three-year, GRDC project is investigating the impact of stubble height on cropping systems in the Western region from 2021 to 2024. Facey Group is running a trial paddock to investigate how the different stubble architectures contribute value to farming systems. There is currently a lot of interest surrounding the 'strip and disk' system (high residue system) and growers are looking to understand the benefits regarding water use efficiencies.

There were three different treatments included in this trial. The first one was using a draper front to harvest the barley, the straw was chopped and spread back onto the paddock, and the canola was sown with a disc seeder. Treatment two used a draper front however the straw was windrowed, baled, and then cropped with a tyne seeder. Finally, the last treatment used a stripper front, and the small amount of straw was chopped and spread back out over the existing stubble, the canola was then sown using a disc seeder.

To measure the soil moisture, a time-domain reflectometry (TDR) moisture sensor was used to measure the volumetric water content in the soil across the break of the season in 2023. The moisture was first measured on the 6th of April before sowing, it was then measured one week after sowing on the 28th of April. In week three on the 12th of May and again in week seven on the 29th of May. The initial measurement was taken just before a significant rainfall event of 35mm. However, after this, there was little recorded rainfall until the 31st of May. Included is Figure 1 which highlights the soil moisture at each stage in each treatment.

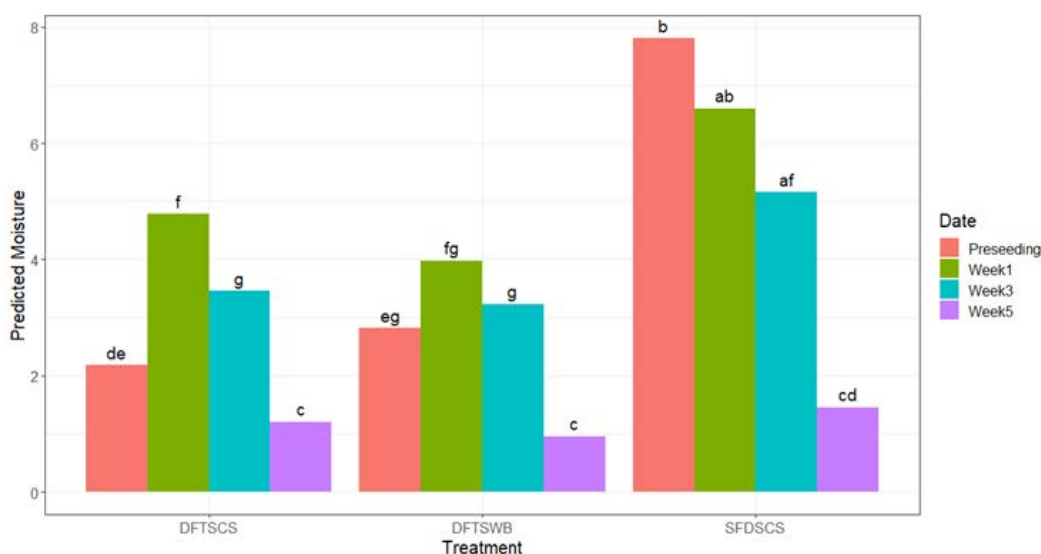


Figure 1 - Predicted Values Displayed with Approximated Standard Errors and LSD Labels. Groups sharing the same letter denote no statistically significant difference

Project Update

GRDC Stubble Height: Plant Available Soil Moisture at Sowing - CONT.



Using the histogram, we can see that the moisture was significantly different in the first three measurements of the final treatment. This highlights that there is more available moisture for the plants with the taller stubble system (treatment three). In week five, due to the long dry spell, the moisture levels were not significantly different across all three treatments. This can be interpreted as the canola grown in the highest stubble system having access to more plant-available moisture up until week three post-seeding. Both treatments that were harvested with the draper front (one and two) are not significantly different to each other in terms of water availability.

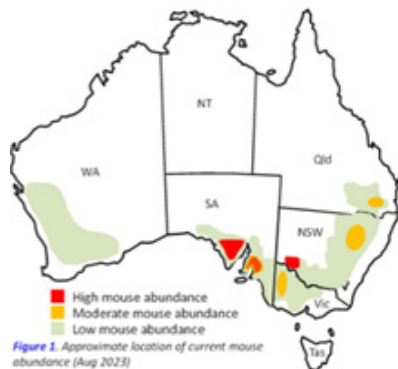
It will be interesting at the conclusion of this trial to determine if the improved water availability will translate to increased yields or grain quality. A few common concerns with varying stubble heights are weeds and spray efficacy. It is worth noting that there was a larger number of weeds observed in the treatment that had been harvested with the stripper front. However, the spray efficacy was similar across the three treatments. The data for the weeds and spray efficacy will be further developed and interpreted in the final report. This will support growers in understanding the impact of stubble height on cropping systems.



Project Update

The GRDC Mouse Management Project prepares Pre-Harvest

Facey Group has been working with Farmanco to monitor mouse numbers in this region as part of a GRDC and CSIRO project. Generally, mouse numbers do decline in winter, and in Western Australia mouse numbers have been low.



Some Key Points for Mice Pre-Harvest and Into 2024

Farmers are still advised to monitor for mouse activity as local paddock conditions may harbour higher populations. Harvest can leave seeds available for them to forage.

Mice Feeding habits.

- Require 3 grams of food per day.
- ~22 grains in a gram (Cereals) = ~66 Grains/Day
- ~22,000 grains in a kg
- Harvest loss @ 250kg/ha = 550 grains /m²

Preparation Pre-Harvest

- Check Crops for active signs of damage to heads/pods. Make note of any paddocks with mice issues and assess baiting strategies/options.
- Mice survivability is determined by access to Feed, Shelter, and Moisture.
- Reducing Feed Availability.
 - Harvest Setup – Minimise grain loss by harvest setup optimisation and utilising drop trays to measure periodically throughout harvest.
 - Utilise Seed Destructors where possible.
 - Livestock on stubble (Reduce shelter/feed).
 - Summer Rain may increase numbers. Monitor if required.
 - Weed control (Remove moisture/Feed/Shelter).

Western Australian project lead Blake O’Meagher, from Farmanco, presented an overview of the project at the Facey Group Pop-Up Spring Field Walk on the 7th of September. He shared some great tips to ensure baiting activity is effective.

- Preference use of 50g/kg zinc phosphide Baits over 25g/kg.
- Application rate of 1kg/ha (provides ~3 grains/m²).
- Bait towards the late afternoon / early evening to maximise mice consumption of baits as they predominantly forage and feed during night.
- Avoid applications onto wet soils or when rain is forecasted as baits will deteriorate when in contact with water.
- Do not spread with other products (Fertilisers, snail baits etc).
- Zinc Phosphide treatment @ 1kg/ha (20,000 lethal doses/ha) should give control of greater than 90%.

Future Drought Fund - SW Drought HUB

By Kaitlyn Anderson - Facey Group AGREC

Prepare yourself for the warmer/dryer seasons to come!!



South-West WA
Drought Resilience Adopter
and Innovation Hub

As the weather starts to warm up, the worrying predictions of warmer, dryer summers threaten to come to fruition. The local growing season has fared well with decent rainfall and growing conditions compared to our neighbours to the northeast of Wickiepin, with reports they will not be reaping much at harvest this year due to the lack of rainfall over the growing season.

Growers in the area have been making the most of the recent good seasons experienced to prepare for what might be to come. Significant amounts of saltbush have been planted this year to combat salinity issues and establish shade and shelter for the hot summers ahead as well as infrastructure investments in feedlotting systems also being a focus.

As local producers become more knowledgeable on drought strategies such as deep sowing and soil re-engineering, our area is becoming more and more capable of having the right tools to manage conditions and reduce potential losses that may come if a dryer year is in the future.

So as we head into the silly season of harvest, here are a few things that farmers can start to think about now, while the going is good, to set themselves up for what may come in the future ...

Stubble Height

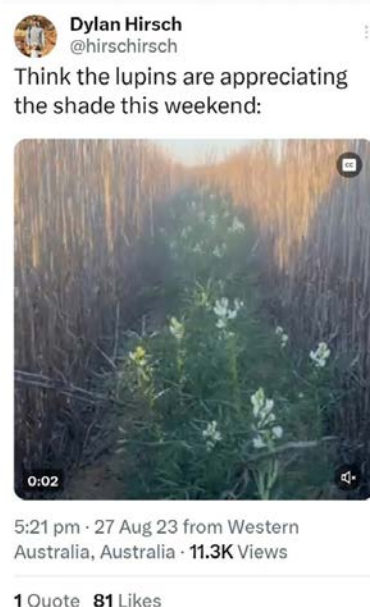
Through the GRDC Stubble Height Project, led by Liebe Group and run by Facey Group, we are seeing promising results with retaining more stubble to reduce soil water evaporation over the summer months. As we go into this harvest season, stubble height should be a consideration as leaving a little extra height may just pay off.

Other project sites of the GRDC Stubble Height Project north of Wickiepin are already seeing some benefits of leaving stubble a little bit higher. This exciting project runs over three years, so watch this space for the findings.

Dylan Hirsch, a farmer from Bunjil WA, posted on X (Twitter) taller stubble shading the emerging lupins and protecting the soil surface.

Dam Management

[WaterSmart Dams](#), is a Future Drought Fund project that has started this year looking at how to get more water into dams and keep it there. The project is led by Grower Group Alliance and has multiple sites across Western Australia. Although the rest of the year's forecast looks dry for the region, some strategies can be used to ensure that producers are reducing solar and wind evaporation from dams. We have seen farmers trying some innovative low-cost solutions such as old grain tarps and clean 20L drums to cover the surfaces of the dams in attempts to limit evaporation. You can find more information on strategies to keep your dams full this summer [here](#).



Facey Group Regional Node Update Cont.

CliMate - "Climate Analysis for Decision Makers"

An app designed by the Managing Climate Variability R&D Program, funded by the Commonwealth of Australia, CliMate is designed for on-farm decision-making to help farmers manage and reduce the risk of weather events and climate variability. CliMate uses data from the Bureau of Meteorology, Queensland's Silo Database and incorporates ideas from other decision-supporting tools records to help answer the following questions.

How is the season?

Using rain, temperature, and radiation history, you can track the season's progress compared to past seasons.

How wet/N?

It uses soil water and nitrate data to assess how the soil water and nitrate have changed over the current fallow season.

Drought?

With drought, percentiles, rainfall deficit, and residence period information, CliMate provides monthly updates on drought risk status using the Drought Percentile Method.

How's the past?

Rainfall, temperature, and radiation historical data are used to review the patterns of these measurements.

How often?

With rainfall, temperature radiation, heat sum, and risk assessment, you can analyse the probabilities of future rainfall and temperature events based on past seasons.

How hot/cold?

You can assess the chance of a heat or cold stress event happening on any particular day.

What trend?

Explore trends in rainfall, temperature, and solar radiation over different periods in recent history.

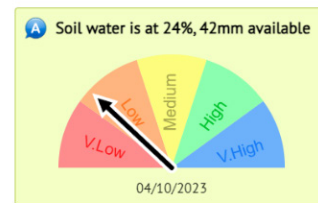
CliMate is a free tool but does require you to make an account. The tool is available through the Apple Store and online. <https://climateapp.net.au/>

How Wet/Nitrate?

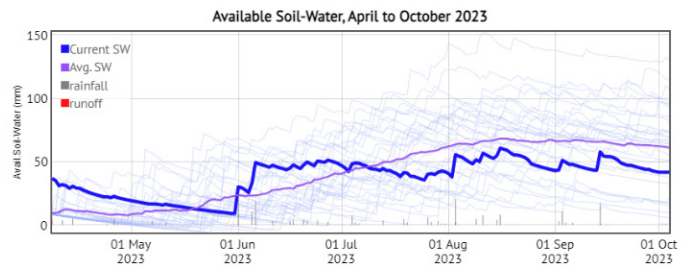


Fallow soil water change?

starting at with
on a with from



Starting soil water:	9mm
Rainfall:	243mm
Gain in Soil Water:	33mm
Fallow Efficiency:	13.6%
Evaporation:	202mm
Runoff:	8mm
Drainage:	0mm



South-West WA
Drought Resilience Adoptior
and Innovation Hub

WHAT IS MISSING IN SOIL HEALTH IN YOUR REGION?



SCAN QR CODE OR VISIT tinyurl.com/soilgaps

A national survey to assess soil issues, knowledge gaps and research and extension opportunities across Australia is now open

- For all land managers, industry, researchers and extension across Australia
- 20-minute survey of multichoice questions about the soil practices on your farm or in your working region
- Results from this survey will help inform the design and delivery of targeted soil interventions to address priorities under the National Soil Strategy
- All responses to this survey will remain anonymous



For further information, contact your local Regional Soil Coordinator listed at: tinyurl.com/RSCcontact



National Landcare Program



South-West WA Drought Resilience Adopter and Innovation Hub



SQNSW Innovation Hub

The survey is supported by the Department of Agriculture, Fisheries and Forestry National Landcare Program as an initiative of the Regional Soil Coordinator program.



TAS FARM INNOVATION HUB

Growing Climate Resilient Communities



SA DROUGHT HUB



NORTHERN WESTERN AUSTRALIA AND NORTHERN TERRITORY Drought Resilience Adoption and Innovation Hub



SOIL SCIENCE AUSTRALIA

Paddock-scale trials using grower equipment such as this one being hosted by Dylan Hirsch at Latham, Western Australia, are evaluating the agronomic pros and cons of tall stubble systems.

The WA tall stubble story – a tale of pros and cons

New cropping equipment is improving seeding and harvesting efficiencies, but growers in Western Australia are asking what the implications are for retaining taller residue through their adoption

Photo: Evan Collis

By Dr Sue Knights

Stubble retention benefits are well documented, including nutrient recycling, reduced erosion, improved rainfall infiltration and reduced moisture evaporation. But as cropping systems evolve and new equipment comes on stream, just how much residue can be retained and what are the implications?

These were the questions growers were raising about stubble management aspects of the new 'strip and disc' system, which is gaining interest in Western Australia. It has led to a GRDC-invested project through the National Growers Network, managed by the Liebe Group.

Chris O'Callaghan, who is leading the project for Liebe Group, says the checklist of queries on the subject from growers was quite extensive, encompassing:

- Is there greater soil moisture retention?
- Is there lower weed germination due to less disturbance?
- Are there improvements to soil structure?
- What are the implications for disease carryover?
- What are the practicalities of sowing into a high stubble load?
- Does the extra stubble cause nitrogen tie-up in thicker stubble?
- What are the implications for harvest weed seed control?
- Is there increased fire risk over summer?
- How is spraying efficacy maintained in taller stubble systems?
- How is stubble management affecting frost risk?

"As we are seeing property sizes increasing in Western Australia, growers are adopting new machinery with which they can achieve operational efficiencies," Mr O'Callaghan says. "Using a combination of disc seeders

and stripper fronts, sowing and harvesting operations can be faster. The system works best with narrower row spacing and higher-yielding crops. It leaves taller standing stubble, which may play different roles in different environments that we do not as yet fully understand.

"Tall stubble refers to taller than 'standard'. Currently, many growers within WA would harvest around 15 centimetres – beer can height – above ground level, and by doing so ensure they collect weed seeds for burning or destruction.

"The taller 'stripped' stubble left by the stripper front can be around 60cm, which means less material going through the header and spread out the back."

ABOUT THE PROJECT

The Liebe Group is collaborating on the project with Facey Group, Stirlings to Coast Farmers and Corrigin Farm Improvement Group – along with an experienced team of researchers, advisers and economists from the Department of Primary Industries and

Regional Development, Statistics for the Australian Grains Industry West (SAGI West) and Charles Sturt University.

The project involves four demonstration sites across the low, medium and high-rainfall zones of WA. Each site is hosting one grower-scale demonstration with two standard treatments at all sites (stripper front with disc seeder and draper front with tyne seeder) and at least one treatment based on the local host grower's input.

"The project presents the opportunity to observe and quantify the differences between standard and tall stubble systems to then provide recommendations as to how they are best managed," Mr O'Callaghan says.

Treatments were implemented during the 2021 harvest and trials will continue over three growing seasons until December 2024.

A range of monitoring and measurements are being conducted at each site, including spray efficacy testing, crop establishment counts and weed counts, crop disease assessments, and seeding and harvest efficiency.

"Any new system has associated costs and

the project will document these together with developing a risk/reward profile to support growers in applying the step changes required for profitability," Mr O'Callaghan says.

"An e-booklet will be produced as part of the project to showcase all demonstration results, economic analysis and return on investment data, as well as key learnings to further inform decision-making. Videotaped grower case studies will also be produced."

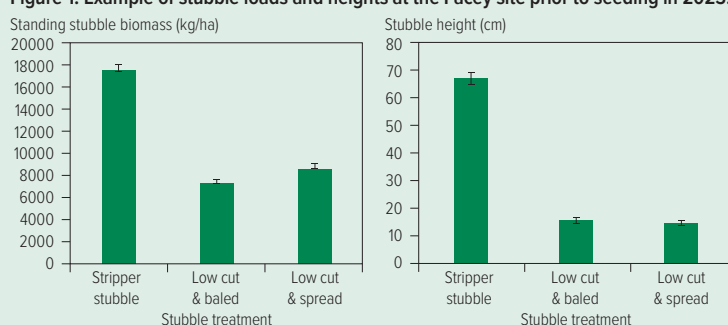
PRELIMINARY FINDINGS

From the first season's measurements, the researchers are beginning to build the dataset to evaluate the pros and cons of tall stubble systems, Mr O'Callaghan says.

Stubble biomass measurements are being collected at both post-harvest and pre-seeding timing to assess stubble degradation over summer as well as to track stubble loads over time.

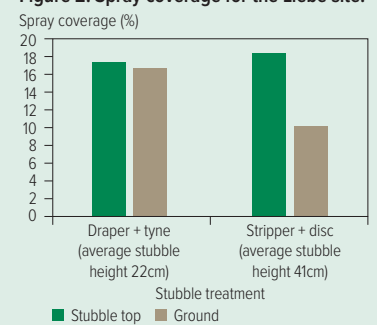
An example for stubble biomass prior to seeding is shown for the Facey site in Figure 1, with the strip-and-disc system retaining well over double the amount of the spread system.

Figure 1: Example of stubble loads and heights at the Facey site prior to seeding in 2023.



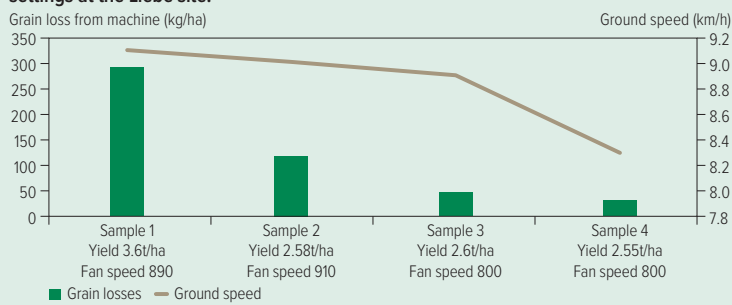
Source: Liebe Group

Figure 2: Spray coverage for the Liebe site.



Source: Liebe Group

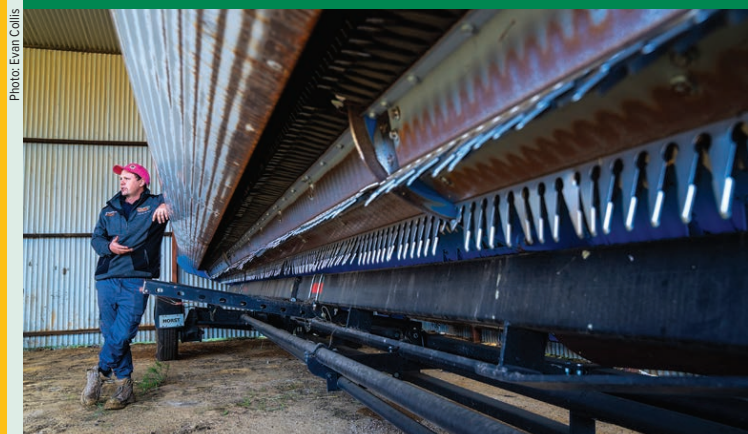
Figure 3: Machine harvest losses assessed at different ground speeds and different fan settings at the Liebe site.



Source: Liebe Group



New machinery including double-disc seeders (above) and stripper fronts are increasing residue retention with taller standing stubble and improving operational efficiencies, explains Dylan Hirsch (below) from Dalwallinu in WA.



“The sheer volume of stubble at many of the sites caused issues particularly with the stripper front stubble, with bulldozing and hairpinning common problems.”

The soil moisture measurements in 2022 were inconclusive; however, in 2023 and 2024 more-detailed measurements will be taken to capture moisture changes and temperatures across different stubble architectures.

An example of the spray cover percentage for the Liebe site is shown in Figure 2, showing the difficulty for spray to penetrate the tall stubble, with more than 40 per cent loss of spray at ground level.

“Growers are experimenting and finding better penetration with smaller spray droplet size.”

Table 1 shows an example of the harvest efficiencies measurements at the Facey site and Figure 3 shows harvest loss assessments taken for the Liebe site. Harvest rate (hectares per hour) were higher when using a stripper front with more economic fuel use.

“Harvesting faster and taking in less material does mean that header settings

should be adjusted accordingly to avoid high harvest losses. Machine (back) losses generally occurred when fan and sieve settings were not adjusted to suit a reduced amount of chaff flowing through the machine.

“Front losses were high when whole heads dropped to the ground. Harvesting too low, often due to uneven crop height, exacerbated this result.”

As the project progresses, the pros and cons of tall standing stubble systems will be documented and quantified to generate a risk and reward matrix for the systems to inform growers’ decisions. An initial list is presented in Table 2.

The 2023 trials will have additional measurements for temperature, soil moisture and nutrient tie-up to be taken across all sites to add further insights into the risks and rewards of different stubble management systems. □

GRDC Code LIE2110-001SAX

More information: Chris O’Callaghan, chris@liebegroup.org.au

Table 1: Yield and harvest operational measurements for the Facey site.

Treatment	Yield (t/ha)	Speed (km/h)	Fuel use (L/hr)	Harvest rate (t/hr)	Harvest rate (ha/hr)	Economy (L/t)
Draper (spread)	3.42	7.03	111.38	29.01	8.58	3.85
Stripper (windrow)	3.33	7.83	100.49	31.43	9.54	3.20
Stripper (spread)	3.25	8.39	87.02	33.08	10.22	2.63

Source: Liebe Group

Table 2: Preliminary list of pros and cons of retaining tall stubble based on grower and researcher observations.

Pros	Cons
Equipment used to create tall stubble can increase seeding and harvesting efficiencies	Harvest losses can be higher if machinery settings are not adjusted
Greater moisture retention achieved when combined with speed tillage	Weed control can be challenging due to reduced spray efficacy and harvest weed seed capture challenges
Less wear and tear on machinery as it processes less straw	Mice control can be challenging
Less soil disturbance, which reduces weed germination	Can be a challenge to match harvesting and seeding equipment
Less erosion	Potentially increased disease load
More flexibility in time of sowing	Increased frost risk
Stubble cover creates cooler soil at seeding	Sowing into tall stubble can be problematic, causing issues with hairpinning and bulldozing
Improved fuel efficiency	Reduced soil disturbance can exacerbate non-wetting soil issues
Increased competition and shading out of weeds	Possible nitrogen ‘tie up’ with extra stubble load

New-look GRDC Western Panel to represent grain growers

Western Australian grain growers will be represented by a new-look GRDC Western Region Panel, which has been appointed for the next two years. The GRDC Board has announced the panel, which comprises two new and seven returning members, who together will help guide priorities for research, development and extension (RD&E) investments to deliver enduring profitability to grain growers.

Appointed to the Western Panel for the first time were experienced grain grower Nick Gillett from Bencubbin and progressive grain grower and industry leader John Young from Calingiri.

GRDC chair John Woods said the incoming panel members brought a diversity of skillsets and knowledge that would complement the experience of returning members.

“The GRDC Board was highly impressed with the calibre of applicants, and this reflects the industry-wide value and respect placed on the GRDC regional panel system,” Mr Woods said.

“What we were looking for was a balance of expertise and experience with a geographic spread that represented the grains industry and could offer considered and insightful advice on industry needs and priorities.”

Mr Woods said the GRDC regional panel system played a critical role identifying and prioritising local, regional and national grains industry issues informed by their industry networks and firsthand understanding.

“We are really confident that we have landed with a panel that will help GRDC

continue to deliver innovative, and targeted, as well as strategic and transformational RD&E investments,” he said.

GRDC Western Panel chair Darrin Lee said it was timely to recognise the significant time, effort and commitment of those panel members who were stepping down after effectively representing their industry.

“We say farewell to my longstanding deputy chair Jules Alvaro and well-known researcher John Blake, who have both made outstanding contributions to the grains industry through their involvement with the GRDC Western Region Panel,” Mr Lee said.

“Their insight, experience and understanding of the issues and constraints facing Western Australian grain growers helped to ensure that GRDC RD&E investments were developed and designed to meet the on-farm needs of growers as well as address some of the challenges beyond the farm gate.

“On behalf of the Western Panel and the broader GRDC organisation I would like to say a very genuine thank you for their commitment to the cause. They leave our state and this region’s grain growers in a better position thanks to some great RD&E.”

The returning panelists are: Perth-based agronomist Craig Brown; Esperance agronomist Quenten Knight; Perth-based wheat breeder Daniel Mullan; Wickipin grain grower Gary Lang; Coorow grain grower Juliet McDonald; Perth-based researcher Richard Williams; and Calingiri grain grower Suzanne Woods. Mr Lee continues as chair.

One of the first commitments of the new panel will be the annual GRDC spring tour. This tour involves travelling to meet with regional growers, advisers and researchers to understand the opportunities and constraints facing different areas of the western region. □

More information: Toni Somes, toni.somes@grdc.com.au

Industry NEWS

Barley prices surge on news of China tariff removal
PRICES for barley jumped by up to \$30 per tonne on Friday following the news that China was removing its tariffs on Australian barley.

Clear Grain Exchange reports 25 of the week's 30 barley buyers purchased a total of 115,000t of feed and malting on Friday, which compares with just 35,000t of barley traded on the previous Friday.

"Prices improved significantly, with feed barley in WA increasing by \$27/t in the Kwinana port zone from \$306/t on Thursday to \$333/t on Friday," Clear Grain general manager Trent Smoker said.

Read full article [HERE](#)

Rain arrests slide in yield potential: GIWA

RECENT rain has arrested the slide in grain yield potential for Western Australia, according to the Grain Industry Association of WA September crop report released recently.

"Rain across large areas of the Western Australian grain belt a week ago, has halted the dramatic slide in grain yield potential that was occurring in the northern regions and improved the prospects for growers in the southern regions," report author Michael Lamond said.

Total estimated grain production for the upcoming WA harvest is down 1.5 million tonnes (Mt) since GIWA's August report, which put total winter-crop production at 16.96Mt.

"This decrease in potential would have continued without the one-off recent rainfall event last week."

Read full article [HERE](#)

Auto sheep drafter gets nod in Henty Machine of the Year field

SHEPHERD Ag's Auto Feedlot Drafter caught the judges' attention at the Henty Machinery Field Days this week to pick up the Highly Commended award in the 2023 Machine of the Year.

The unit has been designed by Temora, NSW, school principal-turned-sheep feedlotter Justin Dunn, to automatically draft out sheep of heavier weights.

"We've been researching and developing this for the past 12 months, and we're delighted this unit has been recognised by the judges," Mr Dunn said.

"It's another piece of constant-flow equipment for the feedlot."

Read full article [HERE](#)

Rural Bank Mid-Year Australian Farmland Values Update

This report looks at the trends in farmland values across the first half of 2023 from a national, state and regional level.

Understanding these trends is vital for making informed decisions about your farming business' biggest asset.

By analysing data for every farmland transaction in this period, the mid-year update provides insights on how lower commodity prices, drier seasonal conditions and higher interest rates have impacted the value of farmland so far in 2023.

View the report [HERE](#)

Lamb slaughter set to surpass 22 million

This year, sheep slaughter is 16% higher compared to 2022, illustrating an oversupply in the market. The slight easing during Oct–Nov in 2022 is unlikely to occur again this year as weather is favourable on the east coast, leading to a more positive outcome for sheep slaughter in 2023.

This year has been a unique situation because the nation's breeding ewe flock will reach its highest level since 2007 at 46.14 million head.

Given the record supply with sheep slaughter rising, this has likely resulted in the sheep indicators easing by 36–68%.

The price has fallen by 70% for mutton while heavy lamb, which is a more premium product, has fallen by 36%, illustrating how premium lamb indicators are relatively steady when compared to commodity lamb. Read full article [HERE](#)

Which crop types perform best in high strength soils?

High soil strength and soil compaction-related issues are widespread in Australia's western and southern grain growing regions, leading to reduced root growth in crops and restricting their access to soil nutrients and water.

A new Grains Research and Development Corporation (GRDC) investment will explore the capabilities of different crops and varieties to overcome high strength soils, examining which crops could be introduced into farming system rotations as an alternative management option to amelioration.

Read full article [HERE](#)

Industry NEWS Cont.

Safety Induction for Pre-Harvest

When staff are taken on to help through the busy harvest period, you must make sure they are given a clear health and safety briefing before they start work. This will reinforce the importance of health and safety issues which will protect workers and reduce the risks of an accident or incident occurring. Click [HERE](#) to view a handy checklist in which employers should work through with farm staff. Remember - A good harvest starts with good safety practices!

National harvest off to fast and early start

AUSTRALIA'S 2023-24 harvest is off to a fast and early start in Queensland, New South Wales, South Australia and Western Australia, with canola, pulses and cereals being stored on farm and delivered to consumers and bulk handlers.

In WA, early crops are yielding poorly to indicate what for some is the driest year to date on record, while in Central Qld, yields and quality have been average or below.

Crops in SA, southern Qld and northern NSW are all showing the impact of limited in-crop rain, but yields are expected to improve markedly as harvest rolls south in coming weeks.

Click [HERE](#) to read full article & round-up of conditions in harvesting states

Introduced worms restore sheep drench effectiveness

VICTORIAN sheep meat seedstock breeders Matt and Brigid Kelly have successfully introduced drench-sensitive worms to make all chemical drench groups effective in their Low Footprint Lamb flock.

Their easy care footrot resistant Nudie shedding flock has been bred to be genetically highly worm resistant, and each generation has been achieving an Australian Sheep Breeding Value for PWEC of -50 percent on Lambplan for the past eight years.

The stud sheep have not had any drench for the past three years and prior to that just once a year at lamb marking.

Read the full article [HERE](#)

Five forecast tools to help you make better decisions

Understanding the likelihood of an extreme weather event can assist producers to plan, prepare and respond through better decision making on-farm.

As part of the MLA-supported Forewarned is Forearmed project, the Bureau of Meteorology has launched five seasonal climate forecasting tools to provide more insight into the possibility of extreme weather events.

Read full article [HERE](#)

New scheme to protect farm data reaches major milestone

The National Farmers' Federation today announces the first three products to be certified under the Australian Farm Data Code.

In an important milestone for the Code, Pairtree Intelligence, FarmSimple, and Western Australia's Department of Primary Industries and Regional Development all had products certified.

The Code is the first of its kind in Australia, intending to inform the data management policies of product and service providers who manage data on behalf of farmers.

Read full article [HERE](#)

New Holland wins big at Agritechnica Innovation Awards

The DLG, organiser of Agritechnica, has announced the winners of the gold and silver medals of the Agritechnica Innovation Awards 2023, including big wins for New Holland, part of CNH.

The gold award went to the OEMs prototype next-generation CR twin axial rotor combine harvester, while its T4 Electric Power fully-electric and T7.270 LNG methane powered tractor landed Silver Awards. Set to be built in New Holland's Belgian plant at Zedelgem, the Gold Award winning combine from New Holland hosts advanced automation features increasing throughput, grain retention, grain protection and fuel efficiency over the current flagship CR combine range.

Read full article [HERE](#)

**Helping rural families
with seriously ill children.**



**Join Agrimaster in Supporting
Ronald McDonald House Charities WA**

Donate today!

Join Agrimaster in Supporting Ronald McDonald House Charities WA & help them reach their mission to raise \$22,000 or more!

Every day, families from rural and remote communities of Western Australia suddenly find themselves at Perth Children's Hospital (PCH) with a seriously ill or injured child. They are confronted with critical medical decisions and are completely overwhelmed by this life-changing situation. On top of this, they must also think about caring for their other children, accommodation, food, and so much more...

That's where Ronald McDonald House Charities WA (RMHC WA) steps in.

RMHC WA offers 24/7, 365 days a year support to rural families. Providing a home away from home, with dedicated staff and a range of education and well-being services to help families stay together and resilient during challenging times.

Let's unite for our rural families:

At Agrimaster, we're on a mission to raise \$22,000 or more in support of RMHC WA by "adopting a room" for two years. Adopt-a-room ensures rural families have quality accommodation, including access to 24/7 support staff, home-cooked meals and play and learning programs, all within walking distance from PCH. [Learn more](#) about how your donation keeps rural families together and resilient during difficult times.

Why RMHC WA holds a special place in our hearts:

The personal journey of Agrimaster CEOs David and Natalie Egerton-Warburton has been marked by remarkable strength and resilience as their son, Fergus, currently battles a rare form of brain cancer at PCH. RMHC WA's support at the beginning of this challenging journey while Fergus was in ICU provided invaluable comfort and support to their family.

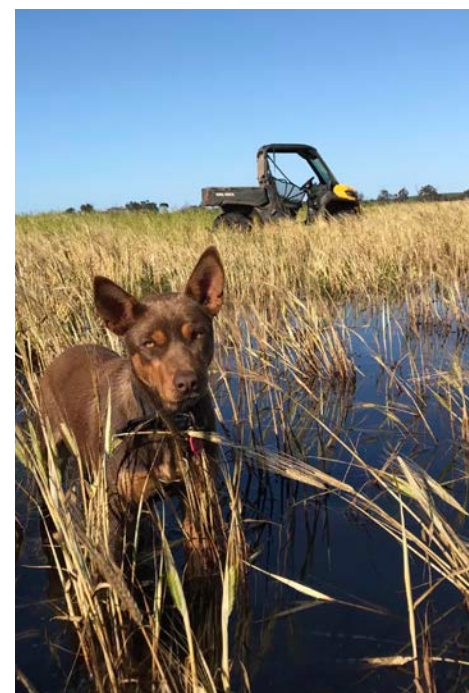
[Watch their story HERE](#)

How you can help:

We invite you to join Agrimaster in making a meaningful difference. Your generous contribution, no matter the amount, will directly support rural families in their time of need. Rest assured, 100% of your donation goes directly to RMHC WA.

Your tax-deductible donation at tax time will help RMHC WA support rural families.

**CLICK HERE TO
DONATE TODAY!!**



Images entered in 2021 photo comp (from Top L: G Haddrick, H Hill, D James, H Wyatt, H Hill.

FACEY GROUP



Shaping the Future

2023 PHOTO COMPETITION

THE RULES

FARMING & FAMILY

MONTHLY WINNERS

recieve a \$25 Coles/Myer Voucher & will feature in our 2024 calendar.

- Photos are to be submitted via email to: comms@faceygroup.org.au
- 2 photos per month may be entered into the competition per person.
- Judging will be completed by a member of the Facey Group Committee and a Facey Group staff member.
- Entry into the competition includes permission for the Facey Group to use images in future publications and media.
- **Competition will run from 1st Dec 22 till 30th Nov 23**
- Camera, mobile phone and drone images all welcome.
- Winners will be announced monthly via social media.

ENTRIES CLOSE LAST DAY OF EACH MONTH

Some of the amazing photos submitted to our 2023 Photo Competition recently ...



Kath Maingard



Kath Maingard



Helen Wyatt



Megan Henry



Deb Cristinelli



Deb Cristinelli

Podcasts of the Month



Intelligence Squared

Daniel Kahneman on Making Intelligent Decisions in a Chaotic World - Part 1

Daniel Kahneman shot to fame in 2002 when he won the Nobel Prize in Economics for his work on the psychology of human judgment & decision-making. In 2022, he joined us on the Intelligence Squared, alongside with his co-author Olivier Sibony, to discuss how businesses & governments can make smarter, swifter & more accurate decisions in our increasingly frenetic world.

[Listen HERE](#)



Mojospresso with Ben Crowe

How to Go on a Hero's Journey

The whole idea of the Hero's Journey is that it's the real story of life - or the "no-filters" experience of being alive, struggles and all. We're born, we pass through childhood to the messiness of adolescence, eventually being spat out into adulthood where we face more internal and external conflicts on the next round of adventure.

Because these patterns are so recurring, the Hero's Journey framework can be an incredibly powerful tool for us to navigate change and uncertainty.

[Listen HERE](#)



Think Sustainability

Farming Better For Phosphorus' Sake

How do we sustainably use phosphorus fertiliser? A large amount of phosphate rock - a finite resource used for fertiliser - is being wasted across the supply chain, with very little being recycled or recovered.

In this podcast episode, we investigate the methods to manage phosphorus supply sustainably from using fertiliser efficiently to changing our diets.

[Listen HERE](#)

NEWS from Our Partners

Harvesting short, patchy crops ... A GRAINS CONVO Podcast Episode

Host: DPIRD research agronomist Janette Pratt

Guest Speakers: DPIRD Senior Research Scientist Glen Riethmuller and Research Scientist Justin Laycock

In this episode of Grains Convo, Janette Pratt hosts DPIRD Senior Research Scientist Glen Riethmuller and Research Scientist Justin Laycock, as they highlight their work and insights into harvesting short, patchy crops and issues with erosion that often come with it.

Glen sheds light on the impact variable crops across the grainbelt have on harvesting and gives advice to growers in regards to harvester setup, in order to manage these variable crops.

While Justin covers the issue of erosion over the summer period.

Listeners will hear his advice for growers in regards to stubble heights when harvesting, including what sort of covers growers should be aiming to retain on their paddocks.

Episode Links:

[Click here](#) for DPIRD's webpage on harvesting short, patchy crops.

[Click here](#) for DPIRD's webpage on managing wind erosion.



[CLICK HERE TO LISTEN NOW](#)



**GROWER
GROUP
ALLIANCE**
Together we grow

NEWS from Our Partners

More fertiliser heading down the tube in year ahead.

It is clear that the period of plentiful rainfall is over 'Down Under' said Rabobank farm inputs analyst Vitor Pistoia. "And throughout the bush, we have a whole range of crop and pasture conditions," he said.

Mr Pistoia said there is still time for improvement, or even deterioration, of paddocks, but some elements are already consolidated and will set the tone for fertiliser demand in the coming season.

"The bigger picture is positive – basically because fertiliser prices have come down massively since mid 2022 and because recent past seasons have been good in terms of performance," he said. "So, there has been reasonable cash flow across a broad range of enterprises. Compared to the peak of 2022, the global references (prices) for nitrogen, phosphate and potash dropped 50 per cent, 46 per cent and 59 per cent respectively."

However, Mr Pistoia said, there are potential headwinds ahead.

"The most significant is how close to average crop yields will be for the harvest that is about to start. If yields are lower or crops fail, this can counteract the improved price structure for fertilisers."

The Rabobank analyst said another headwind is the Australian dollar. "Since January this year, the AUD has dropped from USD 0.68 to 0.645, a 5.2 per cent decline. In combination with the early September surge in petroleum prices, breaching the USD 88/barrel resistance mark, this is putting pressure on farming budgets already stressed from labour and cash rate rises," he said.

Mr Pistoia said terminal-gate diesel prices now range from AUD 2 to AUD 2.1 per litre on the eastern coast, 7.5 per cent up from early in the year. "This is due to supply cuts from the bigger petroleum exporters, but also because of refinery shutdowns. And on the energy side, the forecast is grim for buyers," he said. Rabobank forecasts that Brent oil should remain above USD 90/barrel during 2024.



Rabobank

28

NEWS from Our Partners

More fertiliser heading down the tube in year ahead! Rabobank Report Cont.

Despite these elements, Mr Pistoia said the forecast is positive for both fertiliser prices and demand in Australia.

“The bulk of local fertiliser demand occurs from late December to late April, so Australian importers should procure in advance of that period, whether supplies come from close producers, such as Malaysia, or more distant, such as the Middle East.

“Depending on the type and origin of the product, the lead time can be up to four months. So, the key question is – what is the global price forecast for fertiliser from October until February of next year?” he said.

Mr Pistoia said “For December 2023, in AUD dollar terms, we are forecasting global prices of urea from the Middle East to be down 22 per cent year on year (YOY), DAP from Morocco down 30 per cent and potash from Canada down 38 per cent”.

“Fertiliser demand is not only driven by price but also by farmers’ revenue expectations and soil nutrient requirements.

“The grain and oilseeds sector currently has firm to good prices,” he said. “Lentils, for example, are close to AUD 1,000/tonne. The sugarcane industry has record-high global prices and Australian dairy prices are holding up well compared to beef and lamb.”

Mr Pistoia said the balance of head and tailwinds will definitely favour higher application rates for the coming season.

To find out more about Rabobank, contact Rabobank’s Narrogin team on (08) 9890 0600 or subscribe to RaboResearch Food & Agribusiness Australia & New Zealand on your podcast app.



Rabobank



LISTEN TO ONE OF OUR MOST POPULAR PODCAST EPISODES

Episode 29: Boosting Your Farm's Profitability – Key Strategies Revealed with John Francis



Join us as we explore the key strategies for running a thriving livestock enterprise. Discover the power of focusing on returns per hectare and per DSE (Dry Sheep Equivalent), and learn how to calculate the critical metric of Return on Asset managed in today's changing landscape of soaring land prices and asset values.

We also tackle recent challenges like rising interest rates, inflation, and fluctuating commodity prices. Despite these hurdles, John reveals exciting wealth-building opportunities for businesses with strong financial management skills. In this evolving economic environment, mastering financial management, budgeting, and cashflow is the key to success.

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planfarm

PARTNER WITH PLANFARM

Camera's on your next boomspray?

Planfarm Landline Article

August 2023



Peter Newman
Farm Business Consultant
0427 984 010

Machinery prices are totally bananas these days.

Will the price of new gear ever come down?

Of course, the dealers are saying no, this is it, get used to it. High machinery prices are here to stay.

Don't ask me how this happened. It seems that COVID and the semiconductor shortage caused supply issues with machinery, which pushed the prices up, and the companies are now enjoying producing less gear, and making record margins.

If you were in their shoes, why would you increase production and decrease your margin?

Remember the funny memes a couple of years back when John Deere announced that the new X9 harvester would cost \$1.1M.

Everyone thought it was joke. Somehow this actually seems reasonable now.

\$1M for a SP boomspray is nuts!

What if someone told you that you should not only pay \$1M for the boom, but you should also pay an extra \$150K to have it fitted with weed detecting cameras, and then pay an algorithm fee every time you use those cameras?

Crazy!

Guess what, I've done some numbers, and for many growers, this will be the recommendation.

The growers that this will suit are spraying at least one pass on summer weeds across the farm every year on average.

Their broadleaf weed control in cereal crops is expensive. The weeds, particularly wild radish, has high levels of resistance, and while the numbers are low due to good management over many years, the last few radish are costing a fortune to control.

And, as a bonus, these growers are starting to

worry about how much glyphosate resistant ryegrass they are seeing, and weed detection cameras will help to control the survivors with high rates of alternative knockdown herbicides.

For the analysis I used the average WA farm from the 2021 Planfarm Benchmarks. 4600 hectares. 3600 hectares of crop, 2400 of which are cereals. I priced a summer spray at \$15/ha and have four levels of broadleaf weed control from a cheap, single spray of \$10/ha to a high cost, two spray strategy at \$45/ha just for the herbicides.

There are two main types of weed detecting cameras.

The bilberry system, designed by some young French fellas who recently sold the company to Trimble. The Bilberry system can both detect weeds in fallow situations (e.g. summer spraying) and also detect some green weeds in green crops. So far they have specialized in developing algorithms (algo's to the millennials!) to detect and spray wild radish and other broadleaf weeds in cereals.

And they now also have algos to detect and spray grass weeds in break crops such as canola and lupins. This is called green on green spraying.

The other is the Weedseeker or WeedIT products that can detect and spray green weeds in fallow situations. We call this green on brown spraying.

They all cost about \$150K to fit to a 36m boom.

At the moment, the Bilberry system can only be fitted to new Miller Nitro, Agrifac or GoldAcres boomsprays. However, since buying the company, Trimble have said that in the future they would like to be able to fit to second hand boomsprays, but they will need the right PWM system.

Bilberry charge an algorithm fee of \$2.50/

ha for green on brown, summer spraying, and \$8/ha for green on green spraying (e.g. radish in wheat). In both cases you can spray the same hectare multiple times for no extra cost.

These systems can save around 90% of herbicide cost for both summer spraying and green on green, in crop spraying. For my analysis I used 85%, and I depreciated everything at 10% per year. In reality, SP boomsprays probably depreciate at higher rates than this, perhaps 15%, but I don't have hard data on this so I have decided to stick with our stock standard 10%. I also included \$2 to \$4/ha for repairs, depending on the boomspray.



Weedseeker 2

Chemical saving for the average WA farm

Spraying the entire 4600ha farm with a summer spray costs \$69K. If you save 85% of this, that's a saving of \$58K. If using the Bilberry system, the algo fee is \$11,500, so that's a net saving of \$47K per year.

If your wild radish is quite hard to kill, I have estimated that you are spraying one third with \$21/ha, one third with \$35/ha and one third with \$45/ha of herbicide. This totals \$80K. If you reduce your chemical usage by 85%, that's a saving of \$68K, which equates to a saving of \$49K after the algo fee has been deducted.

For this average farm, the chemical savings with a Weedseeker or WeedIT system are about \$58K, and for a Bilberry system, the savings are \$96K per year.

The verdict

The table below summarises the final verdict. As capital intensive as it is, for some growers the best option is a new SP boomspray with bilberry cameras. Clearly, if Trimble make it possible to fit their cameras to second hand boomsprays, this will be the winner winner chicken dinner.

Option	Machine Value	Annual Deprec.	Tractor spray / hours	Tractor Deprec.	Repairs / ha	Annual Total	Annual Chem saving	Annual Net Cost
Keep existing tug along	\$50K	\$5K	500	\$40K	\$3	\$58K	\$0	\$58K
Buy 2 nd hand SP	\$500K	\$50K			\$4	\$68K	\$0	\$68K
Buy New SP	\$1M	\$100K			\$4	\$118K	\$0	\$118K
Buy New SP with Bilberry	\$1.15M	\$115K			\$4	\$133K	\$96K	\$34K
Buy tug along with WeedIT *	\$500K	\$50K	500	\$40K	\$4	\$108K	\$58K	\$50K

(*) the tug along boom with WeedIT cameras that I refer to here is a Sonic boom with a 7000 and 3000L tank that can bulk spray and camera spray at the same time.



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Long term soil trends in the Facey Group Region

Dan Killham, Account Manager- Nutrition and Sales

We understand that fertilisers are a significant investment for growers. This year's Planfarm Benchmarks showed that fertilisers comprised 25-30% of average grower operating costs within your region. As a result, we want to help growers best direct that investment to where it will deliver the best return, focusing on the right product, at the right rate applied at the right time.

Soil testing provides important information on which to base fertiliser decisions. A fertiliser program based on regular soil sampling will help to eliminate any costly production losses due to nutrient limitations or wastage where fertiliser applications are not required. Testing over time, combined with testing across many sites, builds a picture of where nutrient deficiencies need to be addressed and where fertiliser and soil ameliorants will be most cost effective.

None of this is new, these messages have been around for a long time, so what have we learned from testing over time? The following information is aggregated from soil tests taken across your region in recent years. In most seasons we see around 6000-7000 topsoil (0-10 cm) sites sampled in the Facey Group Catchment area, with significantly less subsoil samples taken (although this number is increasing each year). There are a number of trends here that are also reflected across the state.

Declining Potassium

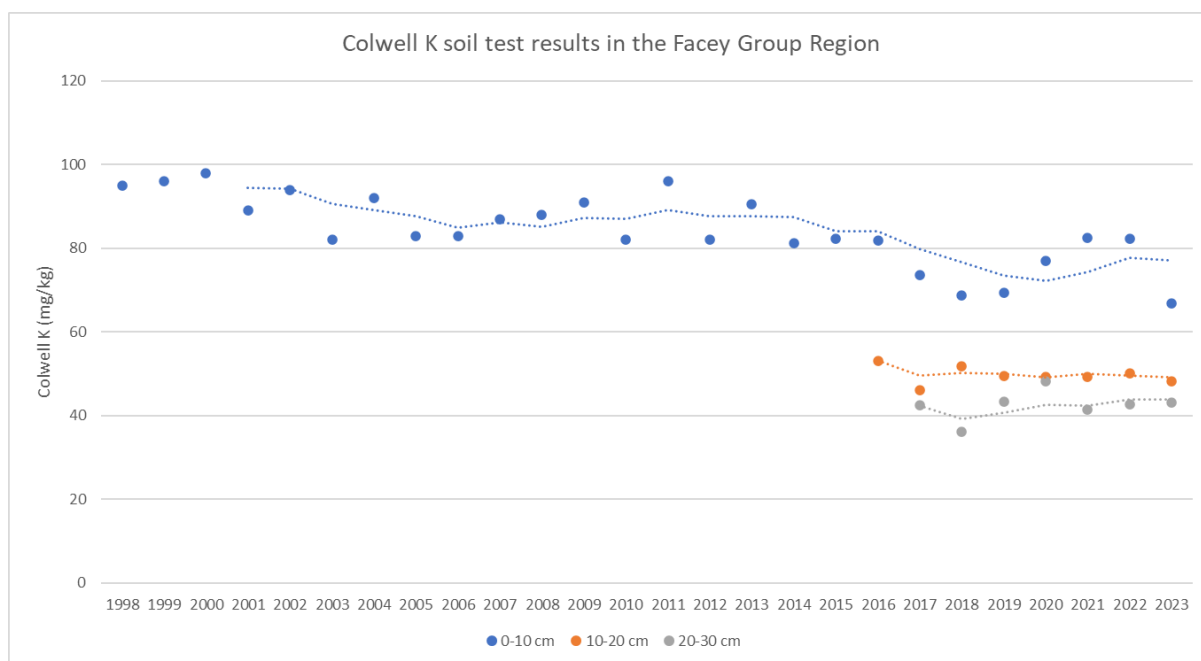


Figure 1: Median soil test Colwell K concentration (mg/kg) from across the Facey Region.

The most concerning trend, which matches up with statewide data, is the decreasing potassium (K) levels in our soils. The topsoil median K levels have been slowly declining, from around 100 mg/kg of soil to as low as 67 mg/kg this season. Sampling lower in the profile also shows slight decreases in the 10-20 cm layer, but no change in the 20-30 cm layer.

The decreases in K in recent years are not surprising, recent high potassium prices saw decreases in K application, and the great crops achieved have been exporting more and more K. The impact of this can be seen in the graph below, which shows the balance of potassium imported to WA by all fertiliser companies, against the paddock export of K in

grain as an indication of a crude K balance. An adjustment has been made to allow for K leaving the paddock in the form of hay, straw, animal production or horticulture, but it is possible the “balance” could be worse than displayed.

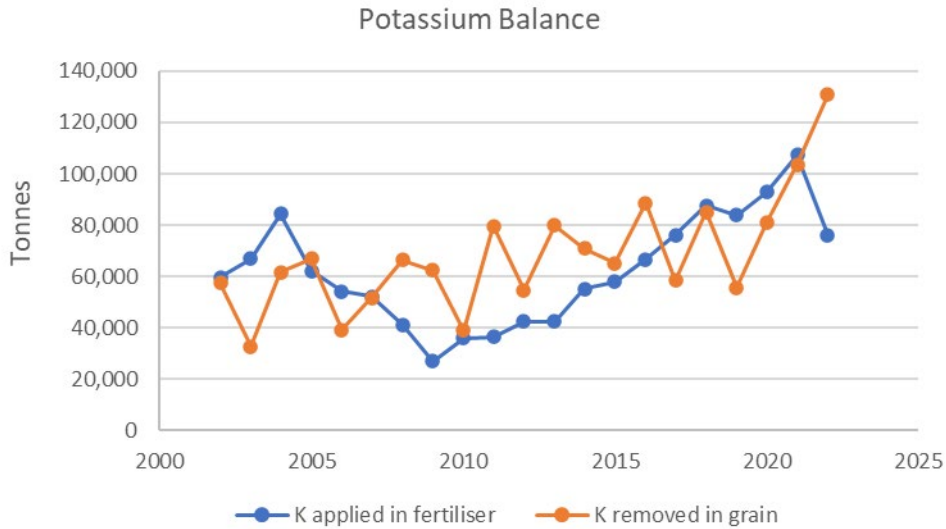


Figure 2: The potassium balance in WA cropping (tonnes of straight K applied vs tonnes removed as grain).

With export exceeding application in so many seasons (especially in 2023, where the gap was the equivalent of nearly 100,000 Mt of Muriate of Potash (MoP; equivalent just in grain) it is unsurprising soil test K levels are declining.

Soil pH

The importance of soil pH for nutrient availability and limiting subsoil constraints has been spoken about for years now. Our NUlogic data suggests that growers within the Facey region have well and truly taken to this message. Since the early 2000s median topsoil pH levels have risen from 4.8 to as high as 5.4 last season.

While there is a lot less subsoil samples taken, there appears to be a similar trend there, with increases of around 0.5 pH unit in both the 10-20 cm and 20-30 cm profiles since subsoil testing became more common.

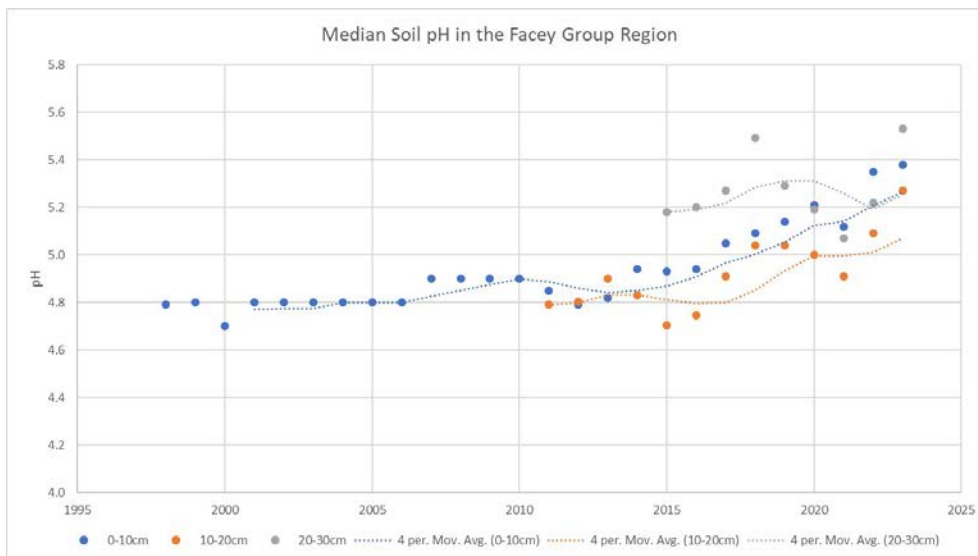


Figure 3: pH results from aggregated NUlogic soil tests since 1998. Dotted lines represent 4 year moving averages at 0-10 cm, 10-20 cm and 20-30 cm.

This is a great result for growers in the region, likely to lead to higher yield potentials and higher availability of most essential nutrients. It may mean that more attention needs to be paid to manganese (Mn) levels, especially in lupins, as Mn availability decreases with increasing pH. This would best be monitored by tissue testing in season, especially after lime has been applied.

Soil Organic Carbon

Similar to other areas of the state, the region has shown a decrease in median organic carbon levels in recent years. This is likely to be due to declining pasture area and increased continuous cropping. Declining organic carbon levels may mean less nitrogen is mineralised within the growing season and levels should be monitored for making N decisions.

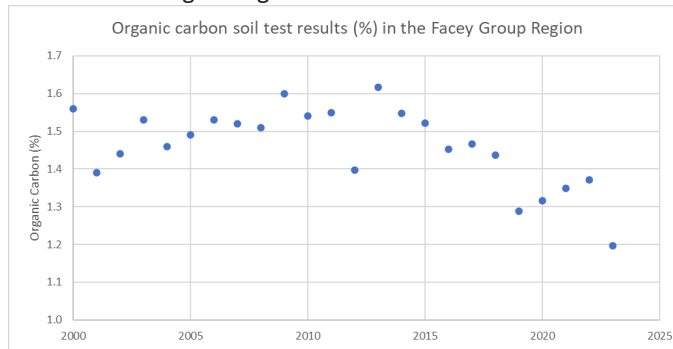


Figure 4. Median organic carbon concentration (%) in the Facey Group region soil tests (0-10 cm) over time.

Other Nutrients

Results for other major soil test characteristics were generally flat or showed random variability over time, so aren't displayed here.

So, what next?

The information presented here is helpful, but the impact of soil testing is at a paddock (or sub paddock) level. I suggest implementing a soil testing plan that aims to sample a third of paddocks on your farm each year to a depth of 30 cm in 10 cm layer increments. It is a good idea to aim to sample once for every 20-30 ha within a paddock. Tools like CSBP's DecipherAg can help you identify the best areas to sample. If you have questions on how to do this or would like some help please reach out.

When you do get your soil tests back, pay particular attention to the K levels. With potash prices lower than last year, and so many soils now drifting lower, it is an important time to have a K plan that fits your operation and budget.

WIND FARM PROJECTS AND THE PAPERWORK – GET (THE RIGHT) ADVICE!

Recently we have seen a significant increase in wind farm proponents exploring locations and seeking to lock farmers into land access agreements and long term leases without any wind testing and before they have a real buyer for the power. The proponents will invariably offer landowners upfront payments, dangle large annual payments and even larger rent payments to entice farmers to sign the access and Lease agreements, thus ensuring that they have access to the land should they go ahead with the wind farm project in the future.

A wind farm lease typically allows for the construction of turbines and associated structures, including roads, fences, compounds and electric transformers. Easements are registered for underground cables, access tracks and the air space around the turbine blades. These structures can restrict use of the farm land and impact on farmer's rights to deal with the land.

Contracts generally include an option agreement and lease. Basically, the developers want an option, to be exercised anytime within 5 years, to lease the land, essentially "land banking", locking the farmer in to a project that may or may not go ahead.

The documents themselves are detailed, complex and weighted for the benefit of the proponent. In our experience, these documents require substantial amendment to protect the farmer's interests.

Many wind farm proponents say agreements must be signed urgently. Where the proponent is seeking an option to be exercised at any time in the next 5 years, time is not really the issue. There are a raft of approvals required for the construction of a wind farm, including from the EPA, Planning Commission and potentially aboriginal cultural heritage and it is important that a lease captures these requirements.

Of importance also is that the farmer has a right to simply say no, I do not want turbines on my land.

At Bailiwick Legal, we have been dealing with wind farm projects for many years. Our director assisted the 16 plus farmers on the Collgar project back in 2009, the first and largest major wind farm in WA. Since then we have acted for farmers from Yuna to Denmark on:

1. Option arrangements;
2. Licence arrangements for wind testing masts;
3. Lease arrangements for small wind farms of 2 to 3 turbines;
4. Lease arrangements for overhead wire routes;
5. Easements for live wires from turbines to mine sites; and
6. Neighbour Agreements.

We have also dealt with dozens of farm access agreements exploring for mining and gas.

If you have been approached by a wind farm proponent looking to negotiate an option and lease, it is essential that you seek legal advice from a lawyer who has experience with these projects and understands the complex set of laws and regulations and the long term impact that these projects will have on your business and land, to minimise the risks associated with these projects both short and long term.

If you would like further information please contact us by email at office@bailiwicklegal.com.au or phone us on (08) 9321 5451 or visit our website at <https://www.bailiwicklegal.com.au>.

The above information is a summary and overview of the matters discussed. This publication does not constitute legal advice and you should seek legal or other professional advice before acting or relying on any of the content.

NEWS from Our Partners

Ag Tech. Before you learn to fly, learn how to fall. Before that, maybe learn how to walk.

I want to tell a story; this one is a bit personal. So, I will be rambling a bit.

The photo below is the farm where I spent a lot of time growing up. My Uncle and Aunt ran the farm and were ahead of their time in many ways. Let me explain. Uncle was what we in Australia would call “a bit of a larrikin” and loved making jokes and telling stories. He was also a numbers man. He was a farmer first but also the bank manager of the local bank. -Obsessed with timing crops and the season, rainfall, and weather numbers. It all went into the little black book, one for every year. Sometimes, you could see calculus paper (!) on his desk, drawing out trends. He had crop rotation systems sorted out around 1975, the year that is. Uncle and Aunty told me that farming is to understand the numbers: for each paddock, crop, season, weather, and soil.



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He also understood that there is significant variation in rainfall and that the “local” official weather station over the next mountain was not representative of the farm. During a field day, he asked a representative from the Bureau of Meteorology if he could buy a weather station, old-style manual of course, and was told, “No, that is illegal”. Aunty sneaked over and got the details, and a local boilermaker made it. Uncle joked that he had an illegal weather station on the farm for years.

Now, we live in a time where I hear that AI and remote sensing, and what have you, will disrupt farming. Mobile Apps pop up like fungi (mushrooms, that is) in a wet and warm summer. Everyone thinks that it will be simple and scalable. Cloud and SaaS software will do it, alright! To clarify, I am not against using models and forecasting, but I think we need quality time-series data to train and utilise these models.

NEWS from Our Partners

Ag Tech. Before you learn to fly, learn how to fall. Before that, maybe learn how to walk. Cont ...

I met an inspiring farmer in Cunderdin in Western Australia, ten years ago. He is now retired and enjoys travelling and life, which is well deserved. He told me his story of the scale and challenges of large-scale broadacre agriculture in Western Australia. Some years later, I met awesome broadacre growers from Tammin, Wongan Hills, Mingenew and Grass Patch. They all told stories that resonated with me.

- For context, the West Australian Grainbelt is 154,862 square kilometres and delivered 21.3 million tonnes of grain in 2021. I have been driving some kilometres for the last seven years.

So, I started Origo.ag. Why? A key issue is that variation in weather and climate is increasing, and I learned that farmers want to understand the variation better and make sensible and profitable decisions. Farmers that want to stay in agriculture, and take on the challenges have a lot of knowledge. Modern and sustainable farming methods are not dependent on generation or age. It is because families and corporates want to be in farming and provide for their families and their shareholders, and they care for the land and their customers. They want hard numbers they can act on; they want to build the data for the future and make better and more sustainable decisions in the future.

I also quickly learnt that relying on manufacturers and cloud providers a few continents away did not deliver. Then, when I told the farmers I had made to know and respect my learnings and plan, they bought the idea, provided testbeds and invested. They wanted hard facts from the ground and high-resolution time series data.

Also, Origo.ag has a team of both talented and experienced people. We deliver results and celebrate only as part of the agriculture industry. I am going to a local tech fest and event for the first time this year. I claim that 99% of the people at the fest won't know that Origo.ag is the leading Ag tech supplier in Western Australia, most don't know that there is an enormous agricultural area just east of the city, or if they know, they haven't set foot on it, even if they have made an App for agriculture.



NEWS from Our Partners

Ag Tech. Before you learn to fly, learn how to fall. Before that, maybe learn how to walk. Cont ...

Fast forward seven years, Origo.ag is now the proud owner of a multi-purpose Ag Technology platform. We developed and own the technology from end-to-end: User Interface, Back-end and the X-Family of electronics. We have NOT burnt millions upon millions of dollars. In the scale of what I can see have been invested in the VC world. We have had modest investments, been using revenue for development, solid support from our farmers, and have no debt. Also, I am impressed with the visions of the Australian Department of Industry (Aus Industry) compared to what I know from the EU (more about that in the future). We have reached an important target and are ready for the next. For many, it is hard to believe. But we do not do AI until it makes sense for our farmers.



Annie Brox has over 30 years of ICT experience, including working with a major international operator. She grew up in an agricultural environment through her involvement with family farms in Europe.

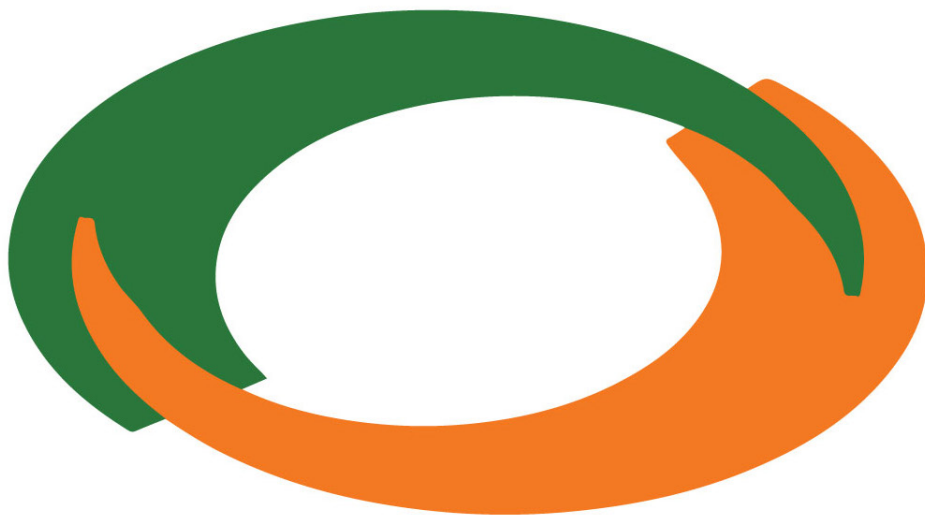
Annie successfully built and sold an ICT services company to a large international Telco. She has worked with ICT and Internet technology services since 1987. Annie has been instrumental in building and creating IT services for a regional Nature Research Institute and the United Nations Environment Programme. Before moving to Australia and starting Origo, she worked as an executive in a large Scandinavian Telco, successfully developing a portfolio of B2B services. Based on her technology experience and family background in farming, she met and discussed technology and modern agriculture with several farmers in the WA Wheatbelt.



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