LIEBE GROUP NEWS

December 2021
Volume 24
Issue 9

What's Inside

2021 marked a success for Liebe Group

Understanding your farm family dynamics: Myers Briggs Workshop

Grain protein content and grain yield in Western Australia

New research to reveal true cost of harvest losses to growers

LiEBE GROUP
Working together in Agriculture

The Liebe Group mission is to facilitate grower prioritised research, development and extension to support our members to be profitable and sustainable.

From the Cover

Chris O'Callaghan and Brianna Hindle conducting harvest loss measurements throughout the Liebe region.

DIAMOND PARTNERS

Rabobank

CSBP

CBH GROUP

RSM

MEMBER NEWS

EVENTS

PARTNER UPDATES

NEWS

FROM THE EXECUTIVE OFFICER

KATRINA VENTICINQUE

WELCOME to the December newsletter, the final edition for 2021!

What a year it has been, from threats of an impending mouse plague, unanticipated frost, bunkering down from a tropical cyclone and a wet harvest, to supply shortages of inputs and equipment. To top it all off, we have navigated through a second year of COVID that saw a rise in concern for casual farm labour and lockdowns that separated families from their loved ones.

With all this in mind, it is remarkable to see firsthand the resilience and strength in farming communities who rise up against these circumstances resulting in an innovative and optimistic end to the season. Despite these challenges, our region has seen an incredible output of grain this harvest that will bring together all of the hard work for a great outcome!

Liebe Group has worked hard to deliver high calibre opportunities for increased business profitability and sustainability along with personal growth for farming families. We are always open to feedback to know if we are hitting the mark on our activities, so will be sending out a short satisfaction survey to our membership next month.

On the project front, we have been successful in another great project through the National Landcare Program Small Farms Small Grants: Soil Extension Activities Grant which will focus on understanding the Why, When and Where of best practice soil testing for sustainable soil health in the Northern Wheatbelt. This project will accompany a suite of projects that will be delivered tnext year.

Early 2022 is already filling up in the Liebe calendar with a multitude of events and opportunities. More information on these events including the AGM, Trials Review Day, Crop Updates, Season Launch, Women in Ag Bus Tour, workshops (and much more) will be sent out early in the New Year.

The 2021/2022 R&D Results Book is also under way with many trial results articles received and work underway to have this collated and ready for collection by early March.

On behalf of myself and the Liebe Group team (Danielle, Lisa-May, Sophie, Chris, Bec) we wish you a very Merry Christmas and Happy New Year. We look forward to seeing you all after some rest and relaxation over the January holiday period. The Liebe Group office will be closed from 5pm on Thursday 23rd December and will re-open on Tuesday 4th January 2022.

GOLD PARTNERS

Elders Scholz Rural · Farmanco · ProcessWorx HR & Safety · IMTRADE Australia Agriculture Reimagined · agrimaster Agribusiness accounting software · AFGRI Equipment · Country Wide Insurance Brokers

SILVER PARTNERS

- Adama Australia
- Australian Grain Technologies
- Bayer
- Boekemans Machinery Dalwallinu
- GrainGrowers
- Intergrain
- McIntosh & Son
- Nufarm
- Nutrien Ag Solutions
- Refuel Australia
- Syngenta
- FMC

2021 MARKED A SUCCESS FOR LIEBE GROUP

AS the Liebe Group team start winding down for the holiday break, local growers are continuing the hard slog across their paddocks in what is turning out to be a long and demanding harvest season. With 454mm of rain this year in Dalwallinu, 2021 has seen record deliveries to CBH sites and grain prices at an all-time high.

Despite contending with unusual seasonal conditions the Liebe Group Main Trial Site, which focuses timely and relevant research annually on one member's property, was a great success thanks to Matt and the Hyde family. Twenty-one trials and demonstrations were included in the 2021 site at Dalwallinu which will be showcased in the upcoming Local R&D Results Book.

Liebe Group staff have worked tirelessly to deliver 27 events throughout the year, to assist local growers in their farm business sustainability, building their understanding of new technologies, chemistries and other advancements in agriculture.

The 2021 Main Trial Site at Dalwallinu.

The annual Spring Field Day in September attracted 186 growers, industry and researchers through the gates while the ongoing AgChats Series had a total of 81 participants attend five targeted workshops.

186 people attended the 2021 Spring Field Day.

81 people attended five targeted AgChats workshops and field walks.

The group was successful in securing new funding for projects including investigation into various stubble heights with the strip and disc system for WA farming systems; dryland salinity in the Moore Catchment; increasing the resilience of regional women to respond to drought (three day agricultural study tour) and optimising soil testing investments to understand soil health in the region. Liebe will also be partnering with other research and industry organisations on various other projects that will deliver activities in the northern agricultural region in the coming years.

LIEBE GROUP
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This harvest has also seen several small but timely projects underway, working directly with our members to measure harvest losses, investigate falling numbers and supporting members to harvest demonstrations they implemented during the year.

Training for GRDC invested harvest yield losses project.

Sample collection for GRDC invested stubble height project.

Partnerships continue to develop for the group, with two new organisations coming on board in 2021 to support the future of local farming businesses including McIntosh & Son (Moora and Wongan Hills), and Country Wide Insurance Brokers. These organisations along with the valued Diamond, Gold and Silver Partners are an integral aspect to the success of the group.

Plans are now underway for the 2022 trial and demonstration program, with the Main Trial Site to be held at Terry, Andrea and Sam Reynolds' property in North Miling. The Liebe Group will be continuing a trial into its second year that is looking at the Opportunity Cost of Herbicide Residues and Resistant Varieties across Wheat, Canola, Barley and Lupins. Watch out for upcoming announcements for other research that will be showcased on the site.

Site implementation of the opportunity cost of herbicide residues and resistant varieties in wheat, canola, barley and lupins at north Miling.

The group would like to thank all partners, members, staff and supporters who have supported the group's success in 2021, and we can't wait to see what 2022 brings!

LiEBE GROUP

Working together in Agriculture

OUR VISION

Vibrance and innovation for rural prosperity

OUR MISSION

To facilitate grower prioritised research, development and extension to support our members to be profitable and sustainable.

OUR PURPOSE

Collective local knowledge that advances, unites and reduces risks for our members.

OUR ACHIEVEMENTS IN 2021

- Engaged membership of over 264 people representing 73 farm businesses and over 1,000,000ha
- Valued partnerships developed and maintained with 28 partner organisations

- Celebrated 24 years of Liebe Group in 2021
- Implemented 2022-2026 Strategic Plan

- Extended over 89 communications to members
- Innovative information delivery to keep members up to date including various forums (AgChats workshops, pop-up field walks,bus tours) and different platforms (videos, podcasts, social media, website, text, WhatsApp)

- Successful implementation of all major events (Crop Updates, Women's Field Day, Post Seeding Field Walk and Spring Field Day)
- Hosted over 22 AgChats, Bitesize Learning workshops and other general Liebe Group workshops
- Event attendance growing

- Held 41 committee meetings
- Well supported committees driving the group forward including the Management Committee, R&D Committee and Women's Committee with 37 members across various Committeees

- Maintained strong financial governance under guidance of the dedicated Finance Committee

- Held a Main Trial Site at Hyde's property in Dalwallinu
- Showcased 21 timely and relevant trials and demonstrations, as prioritised by the R&D Committee

- Delivered numerous projects and demonstrations across the region including Moisture Probe and Weather Station Network, Gen Y Paddock Challenge, Lupin Establishment, Soil Pathogens, Stubble Height, and Harvest Yield Losses

- Upheld values of member driven, innovation, inclusivity, progressive, apolitical, collaborative, professional, independent, empowering, enjoyment and respect

- Consistent skilled staff, providing the opportunity for professional development and capacity building
- Supporting regional jobs in the broad acre agricultural industry

WOMEN OF LIEBE

KERRY BUTCHER

OJ BUTCHER & CO

THE Liebe team caught up with one of the women of the Liebe Group to chat about their background, involvement in the group and their own goals and aspirations.

Note: Views stated in the Women of Liebe articles are strictly those of the individual and do not necessarily represent those of the Liebe Group.

Tell us a bit about yourself – what is your background?
I was born in Dalwallinu Hospital and raised on a farm in Xantippe. I went to school in Kalannie, Dalwallinu then PLC.

At 18 years old, I worked in the Four-Square Grocery Store which was where Wallis Computers is now located, then commenced Enrolled Nursing training at Mount Henry Hospital and The Mount Hospital in Perth, which was completed in 2 years. When I completed my training, I gained employment at King Edward Memorial Hospital.

During days off I would come home to Dalwallinu and attended Rural Youth activities with my younger brother, where I met my future husband, Gary. We married and moved to his family farm Elena in Pithara where we raised our 3 children, Gabrielle, Kerrianne and James.

Kerry with her family in 2017.

During this time, I have continued to work as an Enrolled Nurse at Dalwallinu Hospital and assist with managing the farm.

Due to my second daughter Kerrianne's marriage to a Malawian, Paul, whilst we were visiting his family in Malawi, we were impacted by the poverty experienced by their communities and the low level of medical and education supplies provided for hospitals and schools.

This moved us to brainstorm how we could make a difference. After a few years of thinking, we came up with collecting expired medical supplies and old medical equipment, including beds, from rural Hospitals in our area (Dalwallinu, Three Springs, Morowa, Dongara), books and educational supplies from local small schools including Buntine, Kalannie, Ballidu and Kulin, and clothing and shoes from local donations.

This led to us sending a 20ft sea container filled with donations to Malawi in 2017 and again in 2021. To raise funds for shipping costs we opened a Go Fund Me page and held a Shed Dance on our farm.

Educational supplies have been distributed to rural schools in Malawi. Medical supplies have been given to Paul's uncle who is a doctor in Malawi to supply his own clinic in Malawi's capital Lilongwe. Paul's Uncle Patrick's clinic treats any patient who presents. If they can afford to pay for medical treatment, then they do. If patients are not able to afford care, he still provides them with medical treatment for free, using profits from paying patients to provide this care. Clothing and shoes have been distributed to 2500 villagers, 4 good quality used items per person, in rural Malawi.



Meeting with village elders during 2018 distribution of school supplies and clothing.

Our latest container is currently being sorted and will be distributed in a similar manner by Paul, who has recently moved back to Malawi, over the next few months.

The latest sea container to be distributed in the coming months.

What is your role in your farm business? How long have you been in this role for and how do you enjoy it?
I have now lived and worked on the farm for over 40 years.

In the early years I contributed to the farming business by feeding all employees and visiting shearing teams, contributing to seeding and harvest, sheep management and sheep yard work, all whilst raising our 3 children and working casually/ part time at the Hospital.

Once my father-in-law retired, I became a partner in the business and contributed to financial decisions and continued with all the other farm work previously mentioned.

The biggest thing I have enjoyed over the years is working with my husband and family as a team to enjoy the farming lifestyle we all love.

What are the biggest opportunities and challenges for you and your farm business?
The biggest challenge of any farming business is coping with the unpredictable seasons and the challenges they present.

The biggest opportunities have been learning to grow as a person and family unit to move through the trials and tribulations of farming.

What do you enjoy most about living in a rural area?
Close community, friends, family, same-like people who enjoy the same lifestyle, relaxed and unhurried atmosphere and community.

I also enjoy supporting my community by working at the Hospital and providing them with necessary services in a career that I also love.

What has been the involvement you have had with the Liebe Group? What have you gained from this?
We have been members since Liebe conception.

I have attended all Women's Liebe Days (except the last few), was a member of the Women's Liebe committee for a few years.

I have enjoyed the networking with all attendants and learning about their different businesses and lifestyles.

The Liebe Group has also provided opportunities to learn from other farmers who are prepared to share their successes and failures to help us grow as a business.

Who or what inspires you the most?

Happy and positive life inspires me.

Also, my husband Gary has been a huge inspiration and motivation for me during our business and personal lives.

FROM OUR PATRON

HELLO everyone

No doubt many of you are nearing the end of harvest as you read this and will be reflecting on the season as it draws to a close. One of the messages I take from the 20 or so run of seasons since the turn of the century has been the unprecedented seasonal variability we experience, certainly compared to the 70's, 80's and 90' when seasons were relatively more consistent. As far as we can understand much of this shift towards more year-to-year variability is a direct consequence of climate change that has been impacting on our climate system since the 1970s.

One of the practical consequences of less predictable seasons is how do we handle the delivery of inputs (pesticides, herbicide, fertiliser) to match crop potential? We don't want to miss out on favourable seasons (like 2020 and 21) by under-doing inputs, but nor do we want to risk too much by committing high levels of inputs in tough seasons (like 2006 and 2007).

On top of this tricky challenge is the trend in our grain and livestock markets towards rewarding the use of lower rates of inputs (say to produce products with a lower carbon footprint). And recently we are seeing spikes in the costs of our key inputs, which means we have to maximise the efficiency of use.

So, what can we do about this? There's a lot of experience among the members of the Liebe Group that can be shared more widely – that's a great strength of a grower group. The challenge is also an active subject of research in WA too. Research on the smarter use of inputs so that the same effect can be had for less outlay, all with less risk is a complex problem! It involves bringing together agronomy, climate science, economics, and digital systems to monitor crops, soils, and the environment. It will be a key future focus for researchers. If it is one thing we can be sure about, it is that the present run of favourable seasons will be followed by tough ones and we must be well prepared so that farm profitability can be maintained.

I hope you finish 2021 well and I hope to see many of you in 2022.

Michael Robertson
Deputy Director, CSIRO, and Liebe Group Patron.

Liebe Group Women in Ag Networking and Diversification Programs

LIEBE GROUP
Working together in Agriculture

Three Day Getaway





16TH TO 18TH FEBRUARY 2022 | PERTH & PEEL REGIONS

Local women are invited to participate in a three day interactive bus trip to build resilience and strengthen connections within the agricultural community. Starting with guided tours of grain industry facilities in Perth, the group will then travel through farming regions surrounding Mandurah & Bunbury visiting innovative small businesses.

Enjoy the opportunity to network and explore diverse agricultural landscapes with your peers whilst gaining a better understanding of how to adapt farming operations to suit varying climates.

Visit CSBP Soil and Plant Laboratory, CBH Kwinana Port, Drakesbrook Wines, Patane Produce, Sathya Olive Co, Runnymede Eggs and more!

SPACES ARE LIMITED | REGISTRATIONS BY 7TH JANUARY

Cost

$350 - including three days transport (via coach ex. Perth), two nights accommodation, all meals, resources and site presentations.

For more information or to register, contact the Liebe Group office

Ph: 9661 1907

E: admin@liebegroup.org.au

THIS 'WOMEN IN AG NETWORKING AND DIVERSIFICATION (WAND) PROGRAM' IS FUNDED THROUGH THE FRRR FUTURE DROUGHT FUND: NETWORKS TO BUILD DROUGHT RESILIENCE, IN PARTNERSHIP WITH THE AUSTRALIAN GOVERNMENT.

FRRR Foundation for Rural Regional Renewal

Australian Government
Department of Agriculture, Water and the Environment

Future Drought Fund

AN **INVITATION**

MAKE XERO COUNT

A practical Xero workshop for local producers, businesses and sole traders

Are you interested in moving to Xero or are you already on the journey? Want to learn the tips and tricks to simplify everyday business tasks and more?

Join us for a free, interactive and informative Xero workshop for all current (up to intermediate level) and potential Xero users.

- Reconciling the bank, including effective use of rules, matching, cash coding and common errors
- Sales invoices/debtors including files, emailing, getting paid quicker and bills to pay/creditors
- Getting the most out of Xero reporting
- Using contacts efficiently
- Payroll, including the back-end settings, templates, leave accruals, correcting errors, employee time sheets, finalisation and STP
- Customising your file
- Products and services
- Useful tools including search functions and industry applications

MEET THE SPEAKERS

Keiran Sullivan
Partner, RSM Australia

Equipped with more than 20 years of agribusiness experience, Keiran delivers industry leading solutions to farmers across Western Australia, with a particular interest in adopting digital farm finance strategies.

Reagan Manns
Senior Manager, RSM Australia

Passionate and with a key interest in technology, Reagan explores new ways to implement cloud technologies in agribusiness in order to assist in streamlining, automation and adding efficiencies for his farming clients.

Date: **Monday, 7 February 2021**

Time: 9:00am – 12:00pm

Venue: **The Liebe Group**
17 Johnston Street,
Dalwallinu WA 6609

Cost: This workshop is free

RSVP: Full details coming soon

SAVE THE DATE

Attendees are encouraged to bring their own laptops/tablets.

XERO AWARDS AUSTRALIA FY22

WINNER – RSM AUSTRALIA
ENTERPRISE PARTNER OF THE YEAR FY2022

THE POWER OF BEING UNDERSTOOD
AUDIT | TAX | CONSULTING

GO FIGURED

The free RSM workshop to future-proof your farm

Figured

See why thousands of farmers are shifting from spreadsheets and old agri software, to the leading online farm reporting, forecasting and production tracking tool, Figured.

Join us for a free, interactive and informative Figured workshop, designed to give you an overview of Figured's capabilities and more.

- How Figured works and why it was developed
- Tracking livestock, crop production and forecasting for future movements
- Building budgets for the years ahead
- See how Figured can show your worth now and in the future with a Statement of Position
- Working with Xero and entering sales and purchases
- Accessing ready reporting for you and your advisers:
  - *Variance reporting*: Understand where things have gone to plan and adjust if necessary
  - *Production reporting*: Understand more details per head/tonne produced

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Reagan Manns
Senior Manager, RSM Australia

With a passionate interest in technology, Reagan explores new ways to implement cloud technologies in agribusiness in order to assist in streamlining, automation and adding efficiencies for his farming clients.

Date:	**Monday, 7 February 2021**
Time:	12:00pm – 3:00pm
Venue:	**The Liebe Group** 17 Johnston Street, Dalwallinu WA 6609
Cost:	This workshop is free
RSVP:	Full details coming soon

SAVE THE DATE

This workshop is designed for advanced Xero users. Attendees are encouraged to bring their own laptops/tablets.

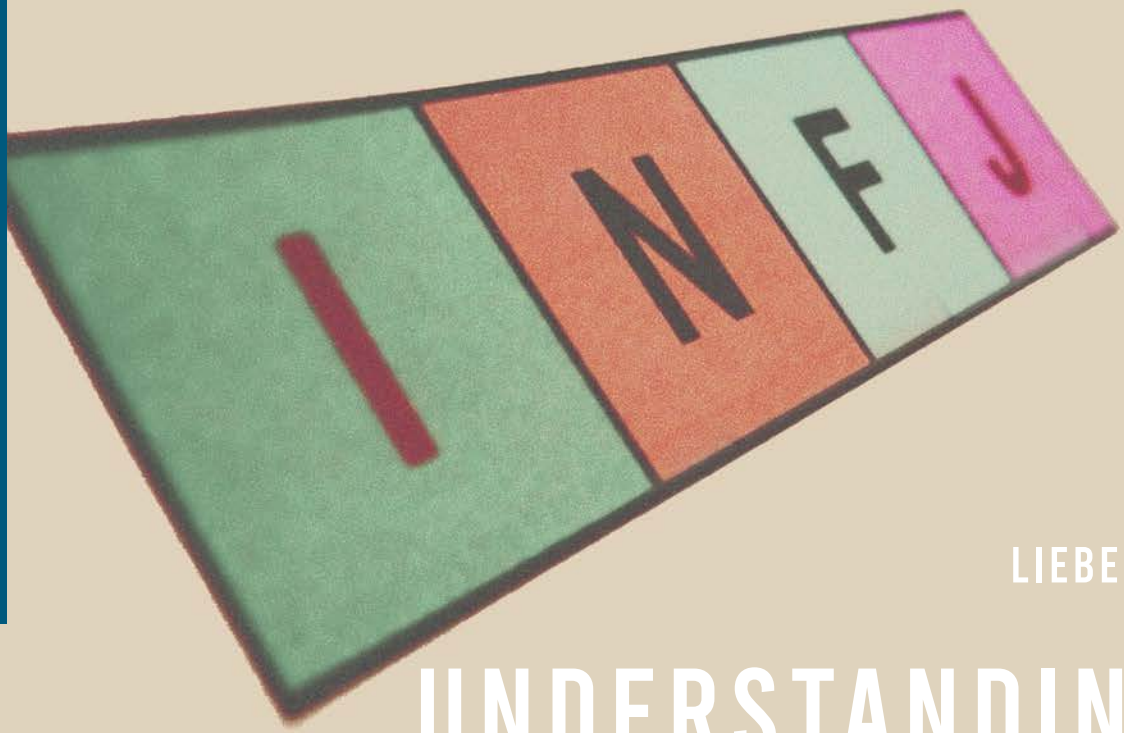
THE POWER OF BEING UNDERSTOOD
AUDIT | TAX | CONSULTING

LIEBE GROUP Working together in Agriculture

Figured

RSM

EVENTS



LiEBE GROUP
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LIEBE GROUP PRESENTS

UNDERSTANDING YOUR FARM FAMILY DYNAMICS

MYERS BRIGGS WORKSHOP

UTILISING THE MYERS BRIGGS TYPE INDICATOR TO GAIN INSIGHT INTO PERSONALITY TYPES, DECISION MAKING AND COMMUNICATION!

The Myers Briggs Type Indicator is the most widely used personality assessment in the world!

Registered psychologist and MBTI accedited trainer Veronique Boulangier will be on hand to guide participants through various activities to better understand the impacts of different personalities in team environments and effective communication in farming families.

1.5 DAYS
24TH - 25TH FEBRUARY 2022

LIEBE GROUP OFFICE

$120 per person
$100 for each subsequent person in the farm business

LIMITED SPACES!

REGISTER TODAY!

Ph: 9661 1907
E: admin@liebegroup.org.au

Australian Government | National Landcare Program

Farm Safety Workshop

Safeguarding your People and Business

DALWALLINU: Tues 22 March 2022 (9.00am – 3.00pm)

Liebe Group Office - 17 Johnston St, Dalwallinu

RURAL EDGE

Supported by: CBH GROUP SAFEFARMSWA

More information via ruraledge.org.au/workshops/farm-safety

5 THINGS YOU WILL LEARN AT OUR

Farm Safety: Safeguarding your people and business workshop

1

HOW TO GET STARTED IN FARM SAFETY INCLUDING CHECKLISTS & TEMPLATES

2

HOW TO MAKE YOUR FARM SAFER

3

HOW TO BUILD A SAFETY SYSTEM ON YOUR FARM

4

LAWS & PENALTIES

5

EMPLOYER & EMPLOYEE RESPONSIBILITIES

SUPPLY CHAIN RESILIENCE INITIATIVE GRANT - ROUND 2

Judy Snell
Director
RSM

THE $107 million Supply Chain Resilience Initiative (SCRI) was established as part of the Modern Manufacturing Strategy and runs over four years from 2020-21 to 2023-24. This SCRI Round 2 provides up to $2 million to establish or scale a manufacturing capability or a related activity to address supply chain vulnerabilities for a critical product and aims to incentivise Australian businesses to invest in capabilities through new equipment, technology, skills and processes.

An Australian Company that has a project that addresses supply chain vulnerabilities associated with critical product categories (within the Sovereign Manufacturing Capability Plan) which include Biopharmaceuticals (medicines), Agricultural production chemicals and Personal protective equipment (PPE).

Objectives of the SCRI Round 2 Program

- Mitigate supply chain risks and improve Australia's resilience to future supply chain shocks;
- Facilitate diversification of supply options and increase investment in the economy;
- Enable diversification into export markets and reduce reliance on domestic markets;
- Improve collaboration between domestic and international manufacturers and suppliers;
- Enhance visibility and transparency of the supply chain for critical products;
- Accelerate digitalisation and deeper integration of technology; and
- Optimise supply chain performance.

Value

The SCRI Round 2 will provide co-funded grant amounts of between $50,000 to $2,000,000 with the grant amount to be up to 50% of eligible project expenditure. Specific eligible activities which may include:

- Synthesising an alternative active ingredient for a critical product;
- Augmenting existing domestic manufacturing capabilities, including for packaging of critical products by
- purchasing capital equipment that would allow an existing manufacturer to pivot or scale operations;
- Strengthening supply chain transparency – incentivising the uptake of digital technology, tracking and tracing;
- Building advanced manufacturing workforce capability, such as establishing a training centre of excellence.

Open date: 6 December 2021
Close date: 17 January 2021, 5pm AEDT.

For more information

For more information contact RSM Perth Steve Elias
Phone: 9261 9113 or email Steve.Elias@rsm.com.au

GLOBAL FOOD PRICE TURMOIL TO CONTINUE IN 2022

Lisa Curtis
Assistant Marketing Manager
Rabobank

GLOBAL food prices will remain high in 2022 as adverse weather, inflation along supply chains and logistical strains stay likely to continue, according to Rabobank's annual Agri Commodity Markets Outlook report.

The specialist food and agribusiness bank predicts adverse weather – exacerbated by the La Niña cycle affecting key producers in the US, Brazil and Argentina – will pose one of the biggest challenges to global food production.

It also expects inflationary pressures in energy prices, fertilisers, shipping costs and labour, as well trading bottlenecks, to hit food supply chains hard. Farmers would normally look to expand production at current commodity prices, but the increase in input costs means the supply will be more inelastic in 2022.

The prices of grains and oilseeds like wheat and corn, food staples coffee and sugar, and key inputs such as palm oil, will all continue at high prices. The bank expects many food processors to support any significant drop in prices by extending commercial hedges to historical averages and by stockpiling more, enabling them to weather some of the broader global volatility.

Carlos Mera, head of agri commodities at Rabobank, said

"There will be no return to pre-pandemic prices in 2022. While Covid-19-related disruption will subside, inflationary pressures and adverse weather will hit producers, making them unable to significantly expand output."

Head of Agri Commodities, Rabobank, Carlso Mera.

"Governments around the world will be watching prices closely. Inflation in food staples like wheat have previously been credited to contributing to societal unrest, including the Arab Spring. Higher farm input costs, expensive shipping and strong demand make for a toxic recipe. The knock-on effect of higher food prices on beleaguered societies in underdeveloped countries shouldn't be dismissed in 2022," Mr Mera said.

High input costs, drought conditions exacerbated by La Niña in major exporting markets, including the US, and high export taxes in Russia will affect the availability of wheat in 2022, albeit Rabobank expects a small surplus in supply over demand. That's in contrast to the sharp deficit witnessed this year, which is the highest since 2013. However this surplus, if it materialises, will only arrive to the market in the second half of 2022.

According to Mr Mera, inflation will also squeeze corn farmers' yields, with higher prices of fertiliser, seed, machinery, labour and rent impacting production. Growing demand for ethanol in the US – which corn is a core ingredient for – and exports to China will also impact its availability for food products in other markets, which will feed through to consumer prices.

Rabobank expects the outlook for sugar prices to be well supported, as Brazil ethanol prices have been climbing and the country could potentially have to divert more sugarcane to produce ethanol in detriment of sugar. Other key markets such as India could be more adversely affected by expensive farm inputs.

Palm oil, a key ingredient in processed foods including chocolate and pizza, as well as in biofuels, will also remain well supported, Mr Mera said with a strong increase in demand in China and the EU. The bank expects global production levels to increase by around 4.3% in 2021/22 in response.

Rabobank sees coffee production levels declining in the current 2021/22 season, as modest increases in the current harvests in Colombia and Vietnam fail to offset the large drop already materialised in the Brazil harvest. Arabica prices have increased by around 80% in the past 12 months, and an element of panic buying is taking over the market. This is especially severe ahead of Christmas and with potential further lockdowns during the northern winter, but the bank expects panic buying to be less of a factor in 2022.

Mr Mera added "Inflation will permeate all commodities, but it's not the only challenge food producers face. The race to net zero is speeding up, which is impacting sourcing and trading decisions, as well as consumer choices. Farmers will face tough decisions in 2022 that could impact societies across the world for years to come."

Rabobank's Agri Commodity Markets Outlook tracks the prospects for a basket of 10 key agri-commodities in the following year.

To find out more about other Rabobank research, contact Rabobank Dalwallinu and Moora branch manager Georgina Day on 08 9661 0900 or subscribe to RaboResearch Food & Agribusiness Australia & New Zealand on your podcast app.

HOW TO SURVIVE A WET HARVEST

Nanda Aung
Marketing Executive
Agrimaster

WET weather can mean getting stuck in the mud, literally and financially. The Bureau of Meteorology has forecast a higher than average rainfall for the eastern states of Australia from November 2021 through to January 2022. Some eastern states are already feeling the effects of this, with flash flooding in Queensland and New South Wales. Western Australia has also experienced higher than average rainfall across November.

When it comes to rain, the best piece of advice for every farmer is to think ahead. If the predicted rains do come, here are seven things to think about to ensure you achieve the highest profit possible and are prepared for the possible changes in your business's cash flow.

Do your homework on off-grade segregation prices

Before making any decisions, find out what bulk handlers are offering for off-spec grades. In previous wet harvests in Australia, off-spec segregations have included AUH, AUW and AH9.

Separate wet and dry grain

Separate the dry from the wet, post-rain grain. If grain needs to be stored off-site, store feed on your farm and higher quality grains in the best storage you have access to. The concern being addressed here is avoiding the potential financial implication of devalued or rejected grain down the track.

Do your homework on receival points

When deciding on receival points, do your homework on the bins planned at each drop-off and the sale price. Compare this with expected freight costs for alternate drop-offs and assess the difference.

Calculate storage costs

If you don't have access to receival drop off points, before assuming storing grain is the most profitable option, calculate the cost of storage.

This doesn't just mean the fees for the storage facilities, but also the interest you are paying on the money that you have borrowed whilst storing the grain and the interest on the money you could make if you sell and have the cash sitting in your account.

Without calculating these numbers (which we outline in Cost of Storing Grains), you could sell the grain for more down the track but actually end up being worse off, with a less overall profit.

Create your "What If" scenario

Before making a decision, complete a 'What If' scenario. Do this by copying your current budget. Name it Working Budget - Wet Scenario.

Based on research for sale prices and the best options for delivery, alter the receivable price and freight costs in your budget to work out the most profitable option for your business. More information is available in the Budget Roadshow Webinars.

agrimaster®
Agribusiness accounting software

Review Selling Strategy

Based on changes to the grade of your grain, you will need to review your selling strategy for the next 18-24 months. If the sale price has dropped, you may need to sell more upfront to generate the cash flow required to achieve your short term plans, such as expenditure for seeding.

Review Forward Selling Contracts

Keep your options for grain in the forefront of your mind. As the season unravels, review your contracts and the impact not fulfilling them will have on cash flow. If some contracts can not be met, seek advice from your consultant or grain marketing advisor to shift your strategy.

If the season does get wet, don't panic and sell at the first price you are offered. Give the market time to settle; even with a wet harvest, there should still be demand for Australian grain. The most important thing you can do to prepare is comparing 'What If' scenarios and plan ahead.

To read more visit: www.agrimaster.com.au

GRAIN PROTEIN CONTENT AND GRAIN YIELD IN WESTERN AUSTRALIA

Australian Grain Technologies

KEY POINTS

- Protein content is driven by environment and incrop management
- Yield has a strong 'dilution effect' on protein
- New high yielding variety Calibre$^{\Phi}$ has a higher protein yield (kg/ha) than older, lower yielding varieties Mace$^{\Phi}$ and Emu Rock$^{\Phi}$
- Yield remains the key driver of enterprise profitability

Background

Grain protein is a key factor in baking and noodle quality, and the protein content of a wheat crop contributes to the grade it is accepted into at receival. Recently, there have been several new varieties with improved grain yield released which has generated discussion regarding grain protein and profit maximisation.

Anecdotally it has been suggested that some varieties have a greater ability to accumulate grain protein than others. So how does this work and what evidence do we have to suggest some varieties achieve higher protein than others?

In wheat, nitrogen taken up by the plant is used for vegetative growth and reproductive development (grain formation). During grain fill nitrogen is either remobilised within the plant or directly transported to the developing grain to be stored as protein.

Understanding protein achievement

Figure 1 shows the 2020 WA National Variety Trial (NVT) protein content of four AH classified varieties plotted against the site average protein percentage. The first thing that we note here is that the protein content of a crop is overwhelmingly driven by environmental (nitrogen availability, soil type, temperature, and water availability) factors. Secondly, there are some varieties that have grain with higher protein concentration at most environments.

For example, the protein percentage for Emu Rock$^{\Phi}$ on average was 13.1% while for Calibre$^{\Phi}$ it was 11.8%. However, as we know, this is only one (minor) part of the story, because Calibre$^{\Phi}$ had substantially higher grain yield (15%) than Emu Rock$^{\Phi}$ in the same dataset. This negative relationship between grain yield and grain protein content is often referred to as 'dilution effect'.

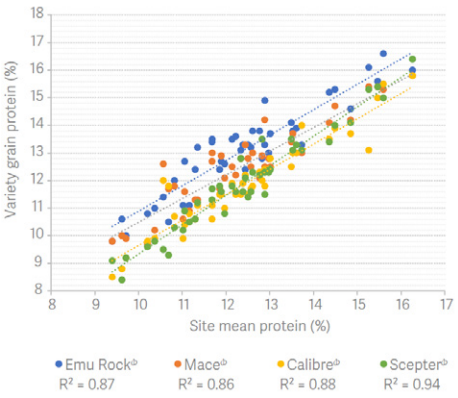

Figure 1: Protein content of four varieties and corresponding average site protein percentage from 43 NVT sites across WA in 2020.

What is the grain protein 'dilution effect'?

Grain yield in wheat is determined by the number of grains set and the size of those grains. Varieties that are higher yielding (more water-use efficient, stress tolerant, disease resistant etc) will fill a larger number of grains to a greater extent with the carbohydrates that have been generated by photosynthesis. In parallel to this, the plant takes nitrogen from the soil to make protein. The amount of protein that can be produced by the plant is limited by the amount of nitrogen available to the crop. Consequently, if a variety has higher water use efficiency and creates more carbohydrates to fill grain, the percentage of that grain that is protein is reduced. This is known as the dilution effect, where the total amount of protein has not changed (or may even be higher), but the percentage protein drops because more carbohydrate (grain yield) has been loaded into the grain. This means that the varietal relationship between grain yield and protein percentage is almost always negative.

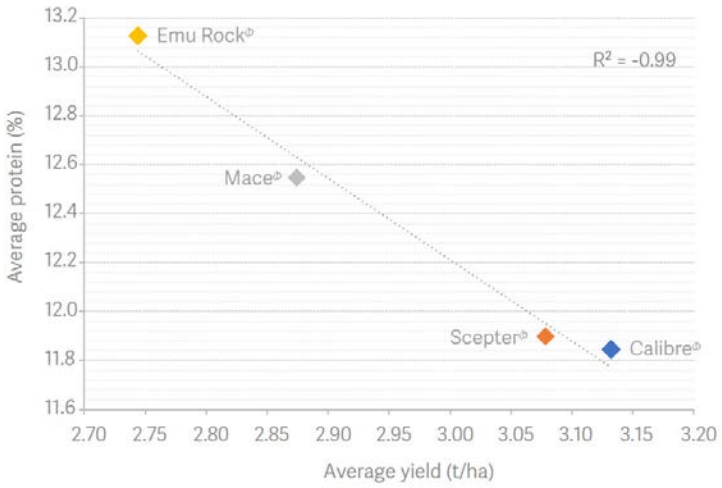

Figure 2: Influence of grain yield on protein content (average grain yield and protein content from 43 NVT sites across WA in 2020).

There are many studies globally that have investigated and demonstrated the 'dilution effect' (including Poudel et al. 2021, Zörb, Ludewig & Hawkesford 2018, and Simmonds 1995) of high yielding wheat varieties. This relationship between grain yield and protein content can also be clearly seen in NVT data (figure 2).

Yield and protein relationship

Given the strong negative relationship between grain protein percentage and grain yield (Zörb, Ludewig & Hawkesbury, 2018), protein content needs to be considered in conjunction with grain yield. It could be thought that if a variety has low protein content, it is a low protein achiever. This common assumption can be misleading and can have large financial ramifications if a variety of perceived high protein achievement, but lower yield, is adopted over the higher yielding but lower protein content variety.

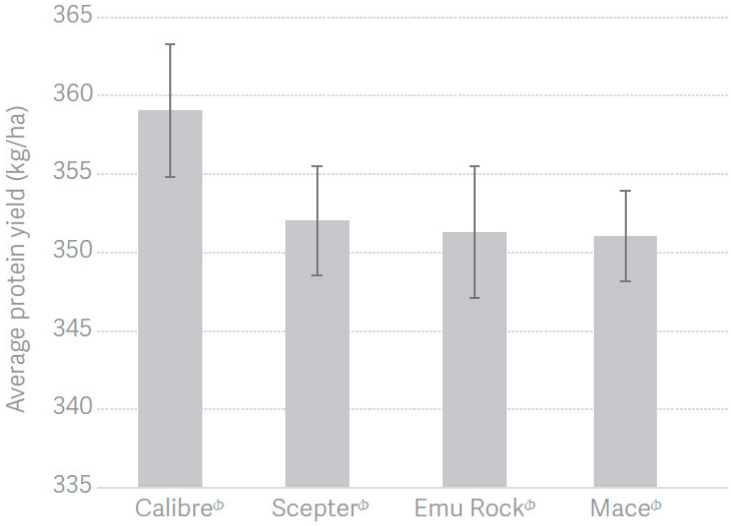

Figure 3: Average protein yield (kg/ha) of key main season varieties grown in WA (calculated from an average of 43 NVT sites across WA in 2020).

A simple way to determine the real protein achievement of a variety is to look at protein yield. Protein yield is expressed in kilograms of protein per hectare. It is calculated by multiplying grain yield (kg/ha) by protein percentage. Figure 3 illustrates the average protein yield of some key varieties in WA, calculated from the 2020 NVT grain quality data set. In figure 1, Emu Rock$^{\phi}$ appeared to have higher protein, but when compared to the newer higher yielding varieties it's true protein achievement (protein yield) is much lower.

Profitability

The adoption of a variety which is perceived to have a higher protein content, could result in significant financial losses because the 'premiums' paid for protein are not sufficient to offset the lower grain yield. So ultimately, a gross value analysis would be more helpful when considering the impact of changing from one variety to another. First, we need to determine how much protein is worth in the market. Based on the historical prices paid for wheat delivered in the Kwinana Port Zone over the last four seasons, each percent of protein is worth on average $8 (Planfarm, 2021).

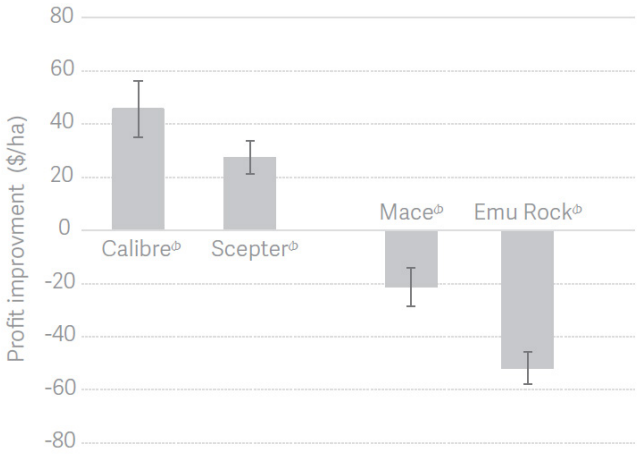

Figure 4: Profit improvement ($/ha).

Gross income, taking into account both grain yield performance and value of the grain, is a more informative way to compare the value of wheat varieties. Figure 4 illustrates the gross profit change when moving from one variety to another. The higher yielding variety Calibre$^{\Phi}$ achieves a significantly larger gross return than the lower yielding Emu Rock$^{\Phi}$, despite its average protein being 1.3 units lower than Emu Rock$^{\Phi}$.

Conclusion

Grain protein percentage has the potential to influence a growers' financial return through determining the grade that grain can be accepted into. However, claims of high protein achievement should be treated with caution when assessing varietal performance, as high grain protein concentration (%) is usually associated with lower grain yield. Furthermore, the price paid for wheat protein of the past four seasons ($8 per % unit of protein) is not sufficient to offset the grain yield loss that is experienced when adopting 'high protein/ low yield' varieties. However, it should be remembered that additional nitrogen application may still lead to greater returns in new elite, higher water use efficient varieties through supporting increased grain yield potential.

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For more information

For more information, contact Dion Bennett, AGT Wheat Breeder 0400 031 911, or Alana Hartley, WA Marketing Manager, 0417 919 299.

Disclaimer: The information contained in this factsheet is based on the data, knowledge, and the understanding at the time of writing. Growers should be aware of the need to regularly consult with their advisor on local conditions influencing variety adoption and agronomic management.

NEW RESEARCH TO REVEAL TRUE COST OF HARVEST LOSSES TO GROWERS

GRDC Media Release
2nd December 2021

RESEARCH is under way in Western Australia to measure the magnitude of grain and profit lost during harvest.

A Grains Research and Development Corporation (GRDC) investment, led by Grower Group Alliance (GGA), will quantify the losses in each of the major grain crops in the western region.

A new GRDC investment, led by Grower Group Alliance, will quantify the harvest losses in each of the major grains crops in the Western region. Photo: Evan Collis.

GRDC Grower Relations Manager – West, Rachel Asquith, said results from the research would help to inform growers' harvest grain loss reduction practices in future years.

"This investment will create a benchmark for grain losses at harvest, rather than growers relying on anecdotal evidence which in many cases probably underestimates the amount of grain left on the ground and the associated lost income," Ms Asquith said.

"We want growers to be able to strike the optimum balance between acceptable grain loss and harvest efficiency.

"The data collected through this investment will determine the different thresholds for each grain crop so growers can aim for that sweet spot of reduced grain losses without a detrimental impact on harvest speed and logistics.

"The methodology being employed in this project will capture every variable that can impact on harvest losses from the front and back of the harvester."

Ms Asquith said the work would build on insights from a previous investment led by Planfarm consultant Peter Newman which specifically measured losses in canola crops.

“Until now, there has been no quantification of losses in other crops so this new investment will establish indicative baseline harvest loss parameters for wheat, barley, lupins, canola, oats, lentils, field peas, faba beans and chickpeas.

“With some crops currently commanding high prices, even a one per cent loss of grain at harvest could amount to a large overall financial loss.”

The project will involve sampling and measurement of harvest losses at 75 sites across all WA port zones.

GGA program manager Mark Holland is coordinating the 12-month project.

Agricultural engineer Ben White is the technical lead for the project, supported by expert input from Department of Primary Industries and Regional Development machinery research specialist Glen Riethmuller. Peter Broley from Primary Sales has assisted with developing the project’s protocols and has provided the equipment for data capture.

Magnetic drop pans are being utilised by trained sampling teams – Chris O’Callaghan from the Liebe Group, Alec Wiles from the Facey Group, and Stirlings to Coast Farmers’ Daniel Fay – who will safely measure losses in a consistent manner across WA, using the BushelPlus app to record data.

Mr Holland said the project had attracted a positive response from growers and the broader industry.

“Growers are keen to see this work being undertaken so they have a better understanding of the true extent of what they are losing during harvest,” Mr Holland said.

“The information generated out of this project will be fed back to the GRDC for assessment of the need for further investment in this area and in the development of related future projects.”

Recommendations drawn from the work will also be presented and discussed at future GRDC harvester workshops in the western region.

Mr Holland said program outcomes are likely to have some relevance and application to other cropping regions across Australia.

Chris O'Callaghan participating in training for the harvest losses project.

GEARING UP FOR SUMMER SKELETON WEED SEARCH CAMPAIGN

Pest and Disease Information Service (PaDIS)

15th November 2021

Department of Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA

THE summer search campaign for the significant agricultural plant pest, skeleton weed, is about to commence across the Grainbelt with ground and drone searching.

Skeleton weed is a declared plant that ties up nitrogen and soil moisture, reducing crop yields.

The 2021 program, led by the Department of Primary Industries and Regional Development (DPIRD) in collaboration with seven Local Action Groups, will cover more than 400,000 hectares.

Targeted surveillance activity will cover 200 properties across more than 56,000 hectares to find and map infested areas for followup treatment, while additional searching will be undertaken to identify areas where the weed could spread.

DPIRD's annual Skeleton Weed Surveillance Program has commenced, with seven Local Action Groups. (©2021 DPIRD)

Aerial surveillance using drones, or unmanned aerial vehicles (UAVs), now account for a large part of the targeted surveillance activity, with a total of 22,000 hectares to be surveyed by the devices in 2021-22.

DPIRD project manager Martin Atwell said drones had proved to be a valuable addition to the surveillance activity and the development of the technology was advancing quickly.

"We have learnt a lot about how best to use drones to accurately detect skeleton weed over the past five years," he said.

"The drones are installed with digital imaging technology to accurately and confidently capture, record and map the presence of skeleton weed to aid eradication strategies and treatments."

The Skeleton Weed Program's activities are funded by growers through the Grains, Seeds and Hay Industry Funding Scheme.

While the program provides support directly to landholders in target areas to control the weed, Mr Atwell reminded all landholders to remain vigilant and report observations to the department.

“Harvest is the best time to observe the weed, providing an opportunity for early detection and making eradication more feasible,” he said.

“Skeleton weed is easily distinguished by its bright yellow daisy flowers during summer and autumn, with upright and usually leafless stems, which gives the appearance of the skeleton of a plant.”

A full review of the Skeleton Weed Program in 2019-20 confirmed the value and effectiveness of the program and made additional recommendations to refine the research and development investments.

The overall aim of the research program is to reduce the level of new infestations and/or increase the level of cleared infestations so the overall infestation is decreasing or constant and includes herbicide trials, precision mapping and historical data analysis.

DPIRD senior research scientist John Moore is leading new projects, including time lapse photography to examine emergence of the weed, machine learning to aid detection, microwave weed destruction and preparation for biocontrol.

DPIRD senior research scientist John Moore is investigating the use of microwaves to kill skeleton weed, as part of a reinvigorated research and development program. (©2021 DPIRD)

“The cutting edge research is combining image analysis with machine learning to detect skeleton weed plants, to determine if new plants are coming from old crowns or dormant rootstocks or seedlings,” Mr Moore said.

“The same technology is also being used to determine the effect of skeleton weed treatments on crop growth.”

DPIRD researchers are also examining the use of microwave radiation to kill skeleton weed in small sensitive areas, where chemical treatments are inappropriate.

More information about the Skeleton Weed Program is available here.

Any suspect skeleton weed plants should be reported to DPIRD using the MyPestGuide Reporter app or to the department’s Pest and Disease Information Service on (08) 9368 3080 or padis@dpird.wa.gov.au.

AERATION COOLING CAN HELP SAVE MOIST GRAIN

GRDC Media Release
18th November 2021

WITH substantial yields expected across much of the Australian grain growing area and wet weather hampering harvesting efforts, growers are being encouraged to consider how they will manage on-farm storage to preserve grain quality.

Storing cereals and pulses with an average moisture content above 12.5 per cent can cause a range of issues, including mould and insect outbreaks in storage facilities.

Grains Research and Development Corporation (GRDC) National Grain Storage Extension Project Coordinator Chris Warrick said aeration cooling could play a critical role in successful on-farm storage this season.

"Aeration cooling allows grain that was harvested slightly over moisture to be stored for up to three to four weeks before it is dried or blended with dry loads," he said.

Grain storage specialist Chris Warrick says aeration cooling in under-utilised and is a potential tool to increase harvest timeliness by being able to hold slightly over moisture grain until it can be dried or blended. Photo: Chris Warrick

Recent survey data has revealed that aeration cooling is widely under-utilised in Australian on-farm grain storage, with two thirds of growers not using it, not realising it can be retro-fitted to their existing silos, or not ordering it as part of new storage capacity.

Mixing over-moist grain with drier loads will lead to a lower average moisture once the two loads are properly blended.

"Ideally, the blended load will be put back into storage with aeration cooling to help redistribute moisture evenly among the grain," Mr Warrick said.

"The cooling fans need to be run continuously if the grain has a moisture content above 12.5 per cent, unless the ambient relative humidity is above 85 per cent for an extended period. Even air-distribution through the silo and open lids or vents are essential, as is monitoring the grain-temperature daily.

GRDC
GRAINS RESEARCH & DEVELOPMENT CORPORATION

“The fans must deliver at least two litres of air per second per tonne of grain (l/s/t) just to hold over-moist grain safely.

“Drying grain out requires much higher airflows, in excess of 15 litres of air per second per tonne, which is only possible with high capacity systems specifically designed for aeration drying.”

Grain drying facilities have the benefit of being able to dry grain down to a safe moisture content for storage but are different systems to aeration cooling, which is important to understand.

Aeration cooling can enable over moisture grain to be held temporarily until it can be dried or blended. The longer-term benefits of aeration cooling are preserving grain quality including germination characteristics, grain colour in pulses and creating unwelcoming conditions for mould and insects.

Mr Warrick said the most common cooling mistake was not running the fans for enough hours to thoroughly cool the entire silo and push fresh cooling air right through the store. This could result in grain at the top of the silo remaining warm.

Grain that has been harvested, dried or blended below 12.5 per cent moisture content can be managed with a three-step cooling process.

Cooling fans should be run continuously from as soon as the aeration ducts are covered until three to five days after the silo is filled, or until the air coming out the top of the silo smells clean and fresh.
They should then be run for the 12 coolest hours of the next five to seven days.
And then for the 100 coolest hours of each subsequent month. To optimise this process an automated aeration controller is recommended.
More information is available on the GRDC Grain Storage Extension Project website at www.storedgrain.com.au where growers can also download the GRDC Grain Storage GrowNote manual for detailed guidance.

For advice on specific storage problems, growers can call 1800 WEEVIL (1800 933 845).

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CALENDAR OF EVENTS

LIEBE GROUP EVENTS 2022

AgChats: Safety Panel	Thursday 3rd February	Liebe Group Office
RSM Figured & Xero Workshop	Monday 7th February	Liebe Group Office
Women in Ag Networking & Diversification Bus Tour	Wednesday 16th - Friday 18th February	Perth & Peel Regions
Myers Briggs Workshop	Thursday 24th - Friday 25th February	Liebe Group Office
Annual General Meeting	Wednesday 2nd March	Dalwallinu Rec Centre
Crop Updates & Trials Review Day	Wednesday 2nd March	Dalwallinu Rec Centre
Season Launch	Wednesday 2nd March	Dalwallinu Rec Centre
Rural Edge: Farm Safety Workshop	Tuesday 22nd March	Liebe Group Office
Women's Field Day	Tuesday 14th June	Dalwallinu Rec Centre
Post Seeding Field Walk	Wednesday 27th July	Main Trial Site, North Miling
Spring Field Day	Thursday 8th September	Main Trial Site, North Miling