LIEBE GROUP NEWS

September 2021
Volume 24
Issue 7

What's Inside

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

185 growers and industry representatives attended the annual Spring Field Day.

DIAMOND PARTNERS

Rabobank

CSBP

CBH GROUP

RSM

MEMBER NEWS

PARTNER UPDATES

NEWS

FROM THE EXECUTIVE OFFICER

KATRINA VENTICINQUE

WELCOME to the September Liebe Group Newsletter. This edition marks the date of the last Liebe Group event for the year! Since January we have held 27 forums throughout the Liebe Group region, including workshops, field days, bus trips, training, sundowners and more! I would like to thank the dedicated Liebe Group staff, incredible committee members and invaluable partners who have supported Liebe to deliver the highest quality of learning opportunities for our entire membership. Keep your eye out in December for a snapshot of activities conducted by Liebe Group throughout the season.

Our Spring Field Day, held only two weeks ago, had fantastic attendance with 185 people through the door! The event went off without a hitch (minus a windy mishap sending a small marquee flying through the paddock!) and I would like to thank our long-time event partner Elders Scholz Rural for cooking up the end of day sausage sizzle and the Dalwallinu Rapid Relief Team for the delicious burgers at lunch. Check out page 4 for a recap on the day and some photos.

Unfortunately we have had to postpone our Annual Dinner which was due to be held this week. However we will instead be planning a season opening event early next year. More information about this will be sent out in the coming months.

The Liebe Management Committee is in the final stages of completing the new Strategic Plan for 2022 - 2026. It is expected that we will have this extended to our members and partners in the coming weeks.

With harvest fast approaching, our region is in the last push to get equipment ready, casual staff settled into their roles and trying to finish those last few jobs that will move down the priority list. Don't forget that the Liebe team is always around to have a chat and a cuppa if you're in town.

GOLD PARTNERS

Elders SCHOLZ RURAL

FARMANCO

ProcessWorx HR & SAFETY

IMTRADE AUSTRALIA Agriculture Reimagined

agrimaster® Agribusiness accounting software

AFGRI EQUIPMENT

SILVER PARTNERS

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

LOCAL RESEARCH ON DISPLAY AT SPRING FIELD DAY

OVER 180 grower and industry representatives attended the 2021 Liebe Group Spring Field Day to witness one the best seasons in the district in the last 10 years.

The Liebe Group Main Trial Site, hosted on the outskirts of Dalwallinu by the Hyde family, included 20 trials and demonstrations covering a knockdown and crop safety matrix, National Variety Trials, machinery demonstrations, herbicide resistance trials and more.

With the marquee nestled amongst the wheat crop and surrounding trials, attendees had opportunities to wonder through the paddocks to listen to presentations and engage with leading researchers, industry partners and local growers.

Over 180 grower and industry representatives attended the 2021 Liebe Group Spring Field Day.

The soil pit was popular, with Wayne Parker, DPIRD, describing the challenges of deep ripping heavy clay soils. The soil pit highlighted a visual display of both ripped and unripped treatments, along with a clear society layer at depth. Growers were able to discuss some of the potential amelioration options for this type of soil.

Wayne Parker, DPIRD, sharing his knowledge in the soil pit.

Angus McAlpine, CSBP, walked growers through Water Use Efficiency calculations, describing how yield potential of different long season wheat varieties impacted by different nitrogen strategies. There was a lot of interest to see how the treatments results will differ in a high rainfall year for the region.

Angus McAlpine and Lois Kowald talking through CSBP's trial.

LIEBE GROUP
Working together in Agriculture

Liebe Group Research and Development Coordinator Judy Storer presented on the Liebe Group soil pathogen trial with DPIRD researchers Sarah Collins and Daniel Huberli. The trial looked at various methods of addressing soilborne pathogens, which is a growing issue effecting crop performance in the region. Some interesting results have been seen to date, and the trial will continue to be monitored through 2022.

The soilborne pathogens trial was a hit with growers.

Along with learning about the new agronomic technologies and practices, the field day provided attendees with an opportunity to think about how they look after themselves. Hosted on R U OK? Day, Jo Drayton from Holyoake spoke about the importance of men looking after themselves with the same level of attention that they give to their machinery. Highlighting that it is a sign of courage rather than a sign of weakness to admit that you are feeling overwhelmed and by seeking help you are working towards being the best partner, mate, colleague and team-mate that you can be. Finishing with some of the signs of stress and tips on how to manage it, Jo gave the group some important things to think about in the lead up to a busy harvest period.

The field day concluded with Southern Cross grower and innovator, Callum Wesley, providing insights into low rainfall farming in the far eastern wheatbelt. He talked about the continued need to adopt new ideas and practices, and not being afraid to fail. Callum walked the audience through his process of developing the Wesley Wheel and highlighted other concepts he has trialled on farm.

The Liebe Spring Field Day is an annual event open to all members of the public, and provides growers with opportunities to access locally relevant research and development, and talk with their peers about what they have seen and how they can implement their learnings in their own business.

The Liebe Group greatly thanks and appreciates the support from Harry, Jane, Matt and Emily Hyde for hosting the site, event partner Elders Scholz Rural, and event supporter the National Recovery and Resilience Agency. The group also recognises the support of Diamond partners; CBH, CSBP, Rabobank and RSM, gold and silver partners, the Rapid Relief Team, REST a While Coffee, all the volunteers, the presenters and all those who attended the day to make the event a success.

The Dalwallinu Rapid Relief Team provided a fantastic lunch!

Growers hearing about the tine disc seeder from AFGRI Dalwallinu.

Jo Drayton, Holyoake, giving her presentation on mental health and maintenance.

MEMBERS NEWS

The 2021 Main Trial Site on the outskirts of Dalwallinu, hosted by the Hyde family.

Mike Dodd and Caroline Peek providing an update on the Liebe Group Soil Moisture Probe and Weather Station Network.

The soil pathogen site was a drawcard for growers.

Bevan Addison, Adama, walking growers through his crop safety matrix trial.

Growers looking at Bayer's ryegrass control trial with Matt Willis.

Growers arriving for a full day of viewing local R&D in Dalwallinu.

Winners of the R&D Survey (from left) Will Roach, Bob Nixon, Ty Henning, Paul Seymour and Keith Carter.

The Rest A While Coffee van was a huge hit!

Alana Hartley, AGT, walking growers through their long coleoptile wheat trial.

Judy Storer, Liebe Group talking growers through the IMI residue trial.

Mark Seymour, DPIRD, sharing information on the lentil NVT.

PINOT IN THE PADDOCK

ON a lovely afternoon in late August, the women of Liebe came together at the Hyde Family Farm to acquaint themselves with the Liebe Group's Main Trial Site for the first "Pinot in the Paddock" field walk.

The field walk was conceived by the Liebe Group Women's Committee with the aim of building the capacity and confidence of less experienced members to understand how trials are conducted and what they can show. It is hoped that this event will become an annual forum to support further learning for all individuals in our member's farming businesses.

The afternoon started with host farmer Matt Hyde providing some history of his family farm and his experiences this year with the Main Trial Site. Matt is the son of Jane and Harry who has been back farming on the property for two years now, after completing his agriculture degree.

The Hyde family run a 100% broadacre cropping enterprise focusing on the primary crops of wheat, barley, canola and lupins, with smaller areas of alternate crops. They farm several blocks with a range of soil types, but the paddocks hosting the Main Trial Site is primarily heavy clay soils with high alkaline pHs and sodicity issues.

Matt enjoyed the season, despite the busy year with a few hiccups and said "there is nothing better than seeing how trials work on your own property; there is nothing more relevant and it has been amazing to have the site here this year".

Local women visiting the Main Trial Site for the first Pinot in the Paddock fieldwalk.

Dylan Hirsch, Latham grower and chair of the Liebe Group's Research and Development Committee continued the day with a rundown of the how and why trials are run. It was explained that trials are conducted to showcase new products and practices to evaluate how their implementation may perform at a grower level. They provide relevant and relatable local results to be used as a decision making tool for farming enterprises.

Trial partners work alongside farmers and groups such as Liebe Group to provide more rigorous data that can be quantified more clearly, and with less chance of false or misleading results. This is done by conducting the trial on uniform sites, with as little variation as possible, and using several replications of treatments to confirm results are actually due to the treatments and not natural variation.

LIEBE GROUP
Working together in Agriculture

As Dylan said “would you buy something, just because the man selling it said it would help” which led to a resounding NO from the ladies present. This is where trials come in, as an unbiased information source showing exactly what, and how much, benefit a product or practice may bring.

CSBP Agronomist Angus McAlpine then walked the women through his trial on nitrogen strategies for winter wheat, providing background and the aim of the research. The trial aims to investigate nitrogen rates and long season wheat, in what has been an ideal season for that variety choice. Long season, or winter wheat, is wheat that will not progress from vegetative to reproductive growth until a cold requirement has been met, meaning it can be planted earlier and still reach maturity at the optimal time.

Angus McAlpine, CSBP, talking the women through his trial and explaining how it is set out and what they are finding out.

The trial is looking to quantify if this option allows for increased yield due to the longer growing period. The visuals of the different crops were very striking, with shorter season varieties already being fully mature whilst the longer season wheat varieties were still producing heads.

The day concluded with a more informal discussion over some delicious wine and food catered by the Old Covent, as the ladies enjoyed the chance to ask as many questions as they liked about any and all aspects of farming and trials.

Narelle Dodd said “it was a great event, and I think we should have one every year”, with Jane Hyde adding, “it was great to learn a bit more about the trials after watching them all season”.

Thanks to our Diamond partners CSBP and Rabobank for supporting and attending the event, it was a brilliant opportunity to engage with trials in a different way.

GEN Y BUS TOUR

EARLY in September, 14 of Liebe Group's younger members set off on the second annual Gen Y bus tour, visiting several of the trials they had implemented this year.

The event was initiated in 2020 to build the capacity of Liebe Group members to conduct their own on-farm trials and help cultivate a peer to peer learning network throughout the region.

The afternoon started with a stop at Blair Stone's property in Marchagee, looking at his trials investigating the amelioration of non-typical soils with the maximum tillage Horsch Tiger machine. Ths demo includes cultivating salt land, gravel duplex and heavy clay soils that would not typically respond well to cultivation. Most of the sites monitored appear to have had some response to the cultivation, and yield results will be interesting to collect.

The next stop was Dylan Hirsch's property in Latham where he has implemented several demonstrations that show the comparison of pre and post-seeding deep ripping. Results varied depending on both time of sowing, and crop stage when deep ripped. At this stage, the results are suggesting that the crop recovers better from the post-seeding deep ripping when it is more developed and has increased energy reserves that can be used to quickly recover from any damage.

The group discussing Dylan Hirsch's trial in Latham.

Casey Shaw, Maya grower, discussed his trial that was implemented in 2020 and is continuing to monitor for long term results. The trial addressed the application of additional biomatter (in this case in the form of compost) to salt-affected soil to increase its production potential. Results were minimal last year with unfavourable seasonal conditions. However, this year the compost has had time to break down and be more effective in the soil profile. As such, visual effects have been observed this year, and the influence the treatments have had on production should be of interest come harvest.

LIEBE GROUP
Working together in Agriculture

A short drive later the group arrived at Shaun Fitzsimons property in Buntine. The site of his trial addressed several different depths of deep ripping, ranging from 350 – 650mm. This was a focus to Shaun's farming enterprise due to recently acquiring a deep ripper that can achieve a much deeper depth (650mm) than their previous machine (400mm). Shaun is investigating if the deeper depth achievable with the new machine is of additional benefit and worth the increased running costs associated with the activity.

The group discussing trials as they travelled between sites.

The last property visited was Boyd Carter's in Jibberding to showcase two trials run by the Liebe Group. The first was looking at the efficacy of the new disc-style seeder, and how its faster-running speed may be beneficial in minimising seeding costs. Results will be extended through the R&D Book in January. This demonstration was established thanks to GRDC investment through the Optimising plant establishment, density and spacing to maximise crop yield and profit in the southern and western regions, led by the University of Adelaide and WANTFA in WA.

The second trial was addressing the effects of various stubble height, and how taller stubble may lower wind erosion risks affecting crop performance. Current results suggest that there are some performance penalties associated with maintaining the higher stubble load, but its potential benefits are still to be observed. This demonstration is funded through the Future Drough Fund and led by NACC.

Taking a closer look a Shaun Fitzsimons deep ripped wheat

The day finished with the group returning to the Dalwallinu pub for a few casual drinks and a meal to continue the discussions and focus moving forward. The Gen Y Paddock Challenge is supported by Smart Farms Small Grants through funding from the Australian Government's National Landcare Program.

For additional information please or to get involved with next years activities contact the Liebe Group on 08 9661 1907.

AGCHATS: ADDRESSING THE ENVIRONMENT, SOIL HEALTH AND ECONOMICS OF WHEATBELT FARMS

A red farm bus welcomed 50 local growers and industry at the Kalannie sports club for an afternoon exploring soil carbon, carbon farming, and more! The bus was loaded and with several cars in convoy, they headed out to Bob Nixon's property in Kalannie.

Bob Nixon has initiated several projects over the past years that look at addressing the long term profitability of his wodjil sand paddocks. The first is an amelioration project that has looked into maximising the potential of wodjil sands by complete renovation. Three years previously, strips were renovated to remove either compaction or both compaction and acidity to a depth of 40cm.

The results show increases in yield of 2 t/ha in wheat and 1.5 t/ha in canola with the full renovation, and doubled rooting depth. It is a brilliant example of what can be achieved, although economics at a larger scale need to be considered.

Bob's second project was a site where he had planted 800ha of diverse native trees as part of a carbon farming initiative. The project will earn carbon credits, and it is a process that anyone can engage in. He began by registering the project with the Australian Government Clean Energy Regular, a critical first step!

He then moved to planting the trees at a density of 300/ha over two years to spread risk with 6m gaps between tree lines to allow native shrubs and grasses to move in and develop the multi-story planting. The project is signed for 25 years and is predicted to accrue approximately 60 Australian Carbon Credit Units (ACCUs) per ha over that period.

On-site visits to the Nixon family farm, discussing his projects.

Back at the sports club, the group was very grateful to get out of the unexpected rain they settled in to discuss carbon farming in more detail. Richard Brake from Richard Brake Consulting, Kerrie House from DPIRD and Crawford Taylor from Rabobank had short presentations followed by a roundtable discussion with the participants.

The afternoon finished with a sundowner and a few beers as discussion broke into smaller groups. There are many ongoing opportunities that are designed for those who wish to become more involved in incorporating carbon credits in their farming practices. To find out more contact the Liebe Group on 08 9661 1907.

Thanks to GrainGrowers for their ongoing support of the AgChats Workshops, and the Yarra Yarra Catchment Management Group for joining our events.

LIEBE GROUP
Working together in Agriculture

AMELIORATION OF SUBSOIL ALUMINIUM TOXICITY FOR IMPROVED PRODUCTIVITY

THIS is a short summary of the two trial reports that will be available in the upcoming Liebe Group Local R&D Book. For more information please contact the Liebe Group Office by calling 9661 1907 or email admin@liebegroup.org.au

Aims

- To demonstrate the soil health and crop growth benefits of using soil ameliorants combined with cultivation to depth to address subsoil aluminium toxicity.
- To increase awareness and support the adoption of tools and methods to identify and effectively manage aluminium toxicity.

Background

Subsoil aluminium toxicity is a major problem associated with acidic soils across the Western Australian Wheatbelt. In most Wheatbelt soils, where the subsoil pH is below 4.8, aluminium concentrations will reach levels that are considered toxic and yield-limiting to crops. Current practices to ameliorate surface soil (0-20cm) acidity have been successful and farmers are now seeking validation on practices that ameliorate subsoil (below 20cm depth) acidity and aluminium toxicity.

Demonstration of practices to identify aluminium toxicity using existing tools such as soil sampling to depth and methods to ameliorate the constraint will provide farmers with the confidence to trial these practices in their environments.

In the trials, three ameliorants (lime, gypsum & biochar) were applied to address the aluminium constraint. The lime application increases soil pH which subsequently converts toxic Al3+ to inert gibbsite. Application of gypsum increases the soil solution sulphate, which can bond with toxic aluminium to form inert non-toxic aluminium sulphate. The oxidising introduced carboxylic functional groups (- charge sites) on biochar surfaces can serve as binding sites for Al3+, rendering it inert and non-toxic. The Liebe Group are seeking to investigate these ameliorative options for reducing toxic aluminium in the soil, and which is the most cost-effective to implement on property.

The Dalwallinu Site

The Dalwallinu site received four treatments - 3t/ha lime, 3t/ha gypsum, 2t/ha Biochar and a nill application, then the treatments that had received ameliorants were deep ripped to 500mm with inclusion plates.

Aluminium is considered to have a negative impact on the growth of susceptible plant species when it reaches concentrations above 5mg/kg. At the site, before the application of ameliorants, aluminium levels were above 5mg/kg throughout the subsoil (10-50cm). Therefore, subsoil aluminium toxicity would be considered a significant constraint to crop performance.

LIEBE GROUP
Working together in Agriculture

The ripped treatments had a higher weed density. Crop establishment was staggered but even across each treatment by the second count. The untilled (control) plots had significantly higher establishment numbers, but there were no significant differences between establishment numbers in the other treatments.

All ameliorants have demonstrated a positive effect on yield, however, this has not translated to a positive effect on the ROI in the first year. It has been shown in other research that amelioration can have positive yield benefits over several years. As such, the Liebe Group are exploring the opportunity to extend the monitoring of this project into future seasons.

Both pH levels and exchangeable aluminium concentrations decreased across the site from year one to year two regardless of treatment. Differences between treatments were less pronounced, and no significant treatment effects can be seen via the soil testing results at this stage.

The Latham Site

The Latham site received five treatments, an unripped control and four ripped treatments with either 3t/ha lime, 3t/ha gypsum, 2t/ha biochar or nill applied ameliorants. All ripping was conducted to a depth of 500mm with the use of inclusion plates to mix the soil.

The host paddock received two significant wind events post sowing, which led to wind damage and row fill at the trial site. There was significant weed density across the site consisting primarily of ryegrass. The weed burden was varied across and between plots, however, overall the ripped treatments had a higher weed burden than the un-ripped treatments.

The lime may have had a positive yield effect, mitigating some of the negative effects of the ripping treatment. The biochar and gypsum however do not appear to have had a positive effect on yield. The lack of response to gypsum was probably because there were already high levels of sulphur present in the soil to render the aluminium non-toxic. The effectiveness of biochar is dependent on its exact makeup and what materials have been included in the product. An exact understanding of when the product is most and least effective at ameliorating subsoil aluminium is not entirely clear.

Both pH and levels of exchangeable aluminium have decreased across the site from year one to year two regardless of treatment. Differences between treatments were less pronounced, however, we can see that the ripped, gypsum and biochar treatments had slightly higher pH's and lower aluminium concentrations at depth than the control and limed treatments

Conclusion

Changes to soil pH and aluminium from year one to year two are likely due to the high rainfall experienced over summer (>100mm). High summer rainfall can wash both hydrogen and aluminium ions through the soil profile and out of the soil testing zone, however, these constraints still exist at depth and may be drawn back up through the soil profile in subsequent years through evaporation.

The results from this project have provided a greater understanding of soil health characteristics and crop growth responses to aluminium toxicity, the identification of potential management practices, and support for local growers to improve their practices to contribute to positive soil health changes in the region. Validating the quantifiable economic benefits for growers is an important step in the adoption of long-term and sustainable land management practices. Additionally, the benefits of soil sampling to depth have been introduced as an effective tool to measure positive changes in soil health due to on-farm practices. More work is being investigated by the Liebe Group to continue in this space.

DBM AND BUDWORM IN THE LIEBE REGION

Amber Balfour-Cunningham
Technical Officer
DPIRD

BUDWORM moth trapping in pulses and canola indicate there has been a big flight of budworm moths through Geraldton, Kwinana East and Esperance over the last two weeks. This means that eggs laid by these moths are now hatching with numbers of young budworm in sweeps of canola growing in areas including Merredin, Bencubbin, Trayning and Kellerberrin. The time to monitor for budworm is now!

The work on Native budworm is funded by GRDC through the IMap Pests and Integrated Pest Management for Grains projects. DBM work is funded by GRDC through the Diamondback Moth Surveillance project.

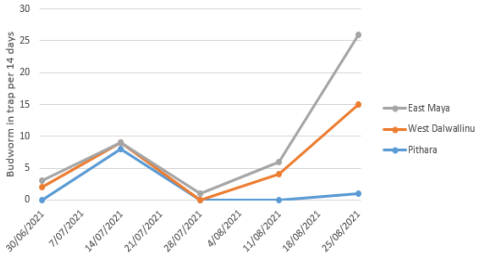


Figure 1. Current Native budworm moth trapping results for canola focus crops in the Liebe Region from early June to mid September 2021.

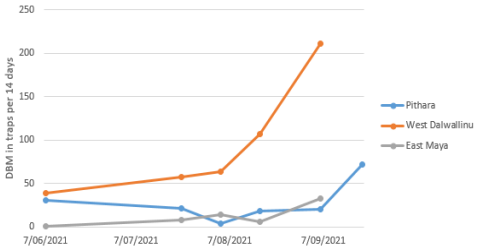


Figure 2. Current Diamondback moth (DBM) Plutella xylostella moth trapping results for canola focus crops in the Liebe Region from early June to mid September 2021.

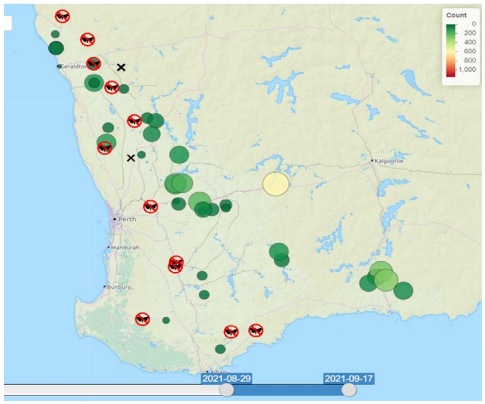


Figure 3. Native budworm Helicoverpa punctigera moth trapping results in pulses for the Western Australian wheatbelt from 29th of August to 17th of September 2021.

Budworm

An increase in moths captured suggests that canola and pulse crops in these areas should be monitored through sweep netting.

Diamondback Moth

An increase in moths captured suggests that canola crops in these areas should be monitored through sweep netting. The DBM threshold guidelines for spraying is more than >100 DBM larvae on average per 10 sweeps for mid to late flowering and 200 DBM larvae on average per 10 sweeps for pod maturation.

Large lighter green or light yellow circles indicate large moth catches (Refer to 'Count' scale), likely indicating a flight of budworm has travelled from the North where they live on native plants such as Leiocarpa.

Data collected by Liebe Group, WMG, South East Agronomy Research, MIG and DPIRD. Native budworm surveillance is funded by GRDC through the IMap Pests and Integrated Pest Management for Grains projects.

There is also an update to the free CropScout app (funded by GRDC, developed by DPIRD) which allows you to enter your sweepnet results, crop value and cost of control to calculate the threshold for spraying. To learn more see here: https://tinyurl.com/DBMUpdate

Department of Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA

PREPARING FOR THE FIRE SEASON

Gary Butcher
Liebe Group member & Chief Fire Control Officer

WITH the warmer months fast approaching, it is important to be prepared for the fire season, and to know who you need to contact in the event of a fire on farm.

Check your equipment

- Make sure your fire fighting equipment is servicable.
- Start and check the readiness of your fire fighting equipment periodically during harvest.
- Check starter rope, hoses for leaks, nozzle operation.
- Ensure your fire unit is properly secured to your vehicle.
- Have fire supression foam onboard (available from Fire control Officers [FCO's]).
- Spare petrol for the pump.

Check your people

- Does everyone know how to operate the equipment?
- Do you have correct PPE available for your fire fighting personnel including uniform, boots, and leather gloves minimum.
- Does everyone know where the water supply on your property is?
- Run through the plan with all staff so everyone knows what they need to do.

MEMBERS NEWS

What to do when a fire starts

- Report the fire and location with accurate directions on the Dalwallinu Fire Fighters WhatsApp group (contact Gary Butcher for this).
- PPE comes first! The best 30 seconds of preparation can save you from months of rehabilitation or death.
- Think about what you are saving and what do you save first?
    - Yourself or others
    - Machinery
    - Infrastructure
    - Crop
    - Stubble or bushland
- Only work to your own capabilities.
- Drive safely and to the conditions
- Ensure lights and rotary beacons are ON
- Keep your 40 channel two way to channel 5.
    - Report in with the property owner or FCO when arriving on site.
- Provide updates when arriving at the fire ground:
    - Size
    - Location
- Keep hydrated.
- Report any injuries, vehicle damage or other concerns to FCO's.
- Try to attend the on fire ground debrief once the fire is out.

What to do for combine fires

- Be sure all extinguishers are charged and all operators have knowledge of how to use them.
- Keep your combine clean.
- Fire fighting equipment on your chaser bin is a good option as chaser bin operators are usually the first to spot a header fire.
- Investigate remote operation of fire nozzles on chaser bins - there are some great ideas around!
- When you finish at the fire ground, be sure to refill with water and have all equipment ready for the next fire.

Who is your FCO?

Chief Fire Control Officer	Gary Butcher	0427 621 069
Deputy Fire Control Officer	Aaron Mills (Dalwallinu)	0428 218 881
Deputy Fire Control Officer	Michael Dodd (Buntine)	0427 642 078
Fire Control Officer	Ross Fitzsimons (Buntine)	0427 642 086
Fire Control Officer	Shaun Fitzsimons (Buntine)	0427 083 105
Fire Control Officer	Graeme Hathway (Kalannie)	0429 662 153
Fire Control Officer	Rowan McCreery (Kalannie)	0408 845 711
Fire Control Officer	Travis Stanley (Kalannie)	0409 136 313
Fire Control Officer	Shannon Fry (Pithara)	0437 743 030
Fire Control Officer	Colin Cail (Wubin)	0428 643 012
Fire Control Officer	Gareth Barnes (Wubin)	0427 311 584
Fire Control Officer	James Butcher (Pithara	0429 621 092

WOMEN OF LIEBE

LOUISE HOUSE

WONG WONG PASTORAL & 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?
Once upon a time, a long time ago, at the end of the Baby Boom, I was born the eldest of five children in the deep south. My Dad, a self-made dairy farmer with my Mother, a home economics teacher. My grandparents early settlers on the Canning River on one side and Victorian and New Zealand immigrants on the other. I grew up on that dairy farm and then on an Angus beef property close to the hills in East Coolup.

I attended school in Pinjarra and after haunting the School Counsellor's office for the last two years of high school, I decided to pursue Occupational Therapy as a career over teaching, law and journalism. It was a great choice, but aspects of all of the other careers have been part of my daily life.

Occupational Therapists are teachers in a therapeutic form. It gave me a good understanding of the medical system and medicine. Handy for living in the country.

Louise and her sisters on their horse Jackie.

In all my voluntary roles I was the communications person in some form. (For Liebe, I helped Deb Metcalf with crafting the wording for a successful application for grant funding). I love words and writing. I've done more short courses than had beach holidays, but that is not progress. Downtime has immeasurable benefits.

What is your role in your farm business? How long have you been in this role for and how do you enjoy it?
My role in this farming operation has altered immeasurably over the past 40 years.

As the Daughter-In-Law, one was expected to know one's place, garden, keep a tidy house, have children, pop out for a bit of sheep work on request, cook wholesome food for the Man of the House, be on hand at all times but to have nothing substantial to do with the farm. However, I found Wong Wong an exciting place to be, with no boundaries. Everything was seen as possible.

In 1982, I did do a spot of ploughing on the Super 70 with a swinging drawbar, only someone forgot to take out the pin! In the days of no two-ways, no communications whatsoever, I sweated every gutter I made, having had the fear of God put into me from graphic illustrations of another's previous ghastly mistakes ...but had no idea how to make it better all day.

My role has grown organically. HR, administration and cook to a legion of casual Kiwi staff; off-shore Mum to back-packers from France, Estonia, Germany and Japan whilst being Mum to three children.

Don't laugh... but I was the early technology adopter not only of Facebook but setting up computers, email, yield data, and accounting software whilst developing my tractor driver, sheep handler/feeder/mover and could-you-just skills.

The Kiwi Crew of Fabulous Chaps.

I like driving harvesters but don't like chaser bins. I do Ford, CASE, Massey, Chamberlain Super 70 and 90 and Mahindra. I do not drive trucks, nor do I fence. I've planted wheat and canola with huge rigs in the middle of the night, and loved the freezing wind on my face driving the old US Army truck home at 3am after a successful night before rain.

What are the biggest opportunities and challenges for you and your farm business?

The intergenerational transition, incorporating partners into the business is both an opportunity and a challenge. Employing staff, creating a productive, happy, satisfied team with a good work/life balance for all, is a challenge. The increased complexity of every system within the farming business, eg compliance, social license to farm, workload, and adaptations to climate I see as significant challenges. The opportunity for families to grow and thrive in the country continues to be an opportunity not to be missed.

Amy, Caroline and James.

What do you enjoy most about living in a rural area?

The absolute blessing about living out of a city is the people and the landscape. I LOVE the people where I live. There is nothing like the country heart and no wonder we are envied. No wonder too, myths abound, but they are based on fact. Living here isn't easy, it is often inconvenient to downright hard, stressful, frustrating and sometimes soul destroying. But there is The Something, isn't there, we all live and breathe.

Out here we take all-comers. We don't live in ghettos. We have a huge sky to live beneath, with birds from eagles to willy wagtails. Our tiny wildflowers bursting forth in spring and the crops make a patchwork of iridescent yellow and deep green interspersed with scrub, huge trees and sadly, weeds. We have fresh water from the skies and sometimes way too much dust. The sunsets are soul food as are the sunrises...as for the stars...

I have been privileged in growing with this business and having the opportunity to indulge in many voluntary passions using my capacity to enhance whatever might be the need of the time. Frustration? Plenty! Rewards? Yes...I like giving to my community, but I get back from those people in equal measure. For me that is what makes the world go round.

What has been the involvement you have had with the Liebe Group? What have you gained from this?
The Liebe Group, specifically the Womens Committee and Field Days have provided inspiration, connection, knowledge, understanding and broadened my outlook. Our lives can be similar in the Family Farming Business but challenges vary. Knowing you are not alone allows experience to be normalised and for each of us to take inspiration from other Ordinary Women. I totally loved getting out and meeting other women like me and the great guests Liebe Women have invited along to speak, coming home exhausted and elated!

Who or what inspires you the most?

- Maya Angelou.
- My Estonian 'daughters' (formerly employees) and their families.
- The Georgian People living in the shadow of the Russian Bear.
- Hafiz, the Iranian Poet.
- My grandmother, one of the first female chauffeurs in Melbourne.
- My Writing Friend Kathy.
- Women who survived Changi Prison -Singapore.
- Victor Frankl and anyone who survived Auschwitz.
- Rumi.
- Bob and Linda I met last week from Guilderton - such a lovely couple in their 70's.

Inspiration is all around you...mostly in ordinary people!

For a full recollection from Louise, please visit the Liebe Group website.

CBH MENTAL HEALTH PROGRAM MARKS MILESTONE WITH LAUNCH OF REGIONAL CRISIS INFORMATION RESOURCE

Amie Bolton
Lead - Corporate Affairs
CBH Group

THE CBH Group, in partnership with Lifeline WA, has launched the Regional Crisis Information Resource, a booklet containing mental health information specifically for WA grain growing communities.

The launch marks the first anniversary of CBH's three-year partnership with four leading mental health service organisations.

Lifeline WA, Youth Focus, Mental Illness Fellowship WA (MIFWA) and Black Dog Institute joined CBH's 'Regional Mental Health Program', which seeks to increase access to mental health services throughout our grain growing communities.

As part of the program, Lifeline WA led the development of the Regional Crisis Information Resource, a 36-page A5 booklet that includes local contact information for someone in a crisis or for anyone supporting a person in crisis. The booklet was produced in conjunction with CBH and supported by Youth Focus, MIFWA and Black Dog Institute.

The Regional Crisis Information Resource will be available for the first time at the Newdegate Field Days and can be picked up for free from the CBH shed.

CBH Chair Simon Stead said he hopes the booklet will be an easy go-to resource for those who need it most.

"The launch of the Regional Crisis Information Resource at Newdegate is a wonderful achievement within the first year of the program," Mr Stead said.

"We hope those who live in WA's grain growing regions and who need support will find this resource helpful and easy to refer to, either for themselves or for someone they care for."

Lifeline WA, CEO Lorna MacGregor said "Lifeline WA is very proud to have worked closely with CBH and the other Mental Health providers to produce this important resource. We want everyone in regional WA to know that they are not alone. Help is always available" .

Over the past year, the four partners in CBH's 'Regional Mental Health Program' have reached several key achievements in their first year.

MIFWA has delivered 20 workshops to 249 people across the grain growing regions, 65 per cent of which were aged between 12 and 18 years. Several workshops were delivered to schools through a whole school approach enabling both students and staff to obtain training they previously had not been able to access.

MIFWA Communications and Engagement Manager Janine Ripper said there was a much larger than expected demand for the training.

"MIFWA has been able to work with local Community Resources Centres, schools, residential colleges and through offering online formats to provide access to training for anyone in grain growing regions wanting to become a Mental Health First Aider, to learn how to look after their own metal health or assist someone they care about," said Ms Ripper.

In its first year of the program, Youth Focus supported 29 young people through 217 web service sessions. Youth Focus delivers frontline services and education programs which aim to reduce symptoms associated with suicide, depression, anxiety and self-harm, and build long-term mental wellbeing to help young people reach their full potential.

Mr Stead said the CBH mental health partners have enabled the co-operative's program to deliver new and expand current services, programs and campaigns for regional Western Australians in the areas of prevention, intervention and continuing care.

"Together, we're aiming to make help easier to access for growers and their communities so that they can look after themselves and their loved one's mental health," Mr Stead said.

If you, or someone you know, are feeling overwhelmed, we encourage you to call Lifeline on 13 11 14 (24 hours/7 days).

Partner	Overview	CBH-supported activities
Lifeline WA	Provides all Western Australians experiencing a personal crisis or thinking about suicide with access to 24-hour crisis support and suicide prevention services.	Support of the 13 11 14 Crisis Line. Video and telephone counselling for graingrowing communities with a focus on suicide bereavement counselling. Development of a Crisis Response Pack for communities to use in times of need.
MIFWA	Supports people who have experienced mental illness, and their families and carers, to find a way to reconnect with their life and community.	Provide grain growing communities with access to a variety of training and workshops to support local people and their families and carers.
Black Dog Institute	Aims to reduce the severity and incidence of mental illness, actively reduce suicide rates, remove the stigma around mental illness, and empower everyone to look after their mental health.	Provide regional GPs and health professions with training and education in the areas of anxiety, depression and suicide.
Youth Focus	Provides free mental health services to young people aged 12-25 years with the aim of reducing symptoms associated with anxiety, depression, selfharm and suicide, and build longterm mental wellbeing.	Expand one-to-one face-to-face counselling via existing network of regional locations. Introduce web counselling services across grain-growing regions to new clients

FREIGHT CHALLENGES FOR AUSTRALIA'S UPCOMING GRAIN EXPORT PROGRAM

Lisa Curtis
Assistant Marketing Manager
Rabobank

AS commodity prices have risen steeply over the past year, so too has the cost of global freight. High prices, slow and delayed shipping and difficulty getting containers has been a challenging dynamic for all Australian exporters, including ag, according to Rabobank senior analyst Cheryl Kalisch Gordon.

"With a great outlook for commodity prices, positive outlook for winter crop production and a world in need of Australian grains, could freight be 'the fly in the ointment' for a strong export program in 2021/22?" she asks.

"Container freight costs have increased ten-fold from pre-Covid-19 levels and dry bulk shipping costs are up close to five-fold.

"For containers, this is primarily due to an imbalance in the location of containers and vessels between import and export regions, created by successive shocks to demand followed by faster recovery in some regions – especially China – than others."

For dry bulk shipping, Dr Kalisch Gordon says the price rise has been mostly due to very strong global demand for commodities, but also a lift in demand due to some shippers moving their cargo to smaller dry bulk vessels to avoid high container freight pricing.

Rabobank senior analyst Cheryl Kalisch Gordon.

"For both container and bulk freight, shipping fleet efficiency has been impacted by Covid-19 restrictions," she says.

These tight freight markets, she says, have also been impacted by out-of-the ordinary events.

"The blockage of the Suez Canal in March this year by container ship the Ever Given was one such example.

"More recently, constraints on capacity at some Chinese ports, but most notably Ningbo (the world's third busiest cargo port), due to COVID detections, required diversion of ships to ports such as Shanghai, Xiamen and Shenzhen, causing vessel congestion in those locations.

"This is exaggerating the already stretched global freight complex."

While Ningbo is expected to fully open again soon, Dr Kalisch Gordon says delays and additional demurrage (penalty) costs will result at both Ningbo and other Chinese ports in the short-term.

"The cost of ocean freight is set to remain high over the next 12 months," she says.

Rabobank

“For container freight, this is due to an expected ongoing imbalance in economic recovery in different regions – which stymies the efficient movement of containers – while growth in demand for container vessels is also forecast to outpace growth in capacity.

“For bulk freight, costs are also set to remain high, given strong global demand and trade in commodities and low new shipping capacity coming to market.

“With a path to the normalisation of costs is not forecast to begin before Q2 2022.”

Dr Kalisch Gordon says all regions of the world are experiencing shipping challenges. However, shipping lines have been prioritising high-volume routes, such as from Asia to the EU and US, where two-way trade options are greater and allow more efficient use of ships and containers.

“Some ports, including some in Australia, are not being serviced or not serviced with the same regularity,” she says. “With this dynamic, containerised grain exports can expect continuing challenges, especially for smaller exporters who cannot charter their own vessels or command a sufficient portion of ship space to secure a service.”

For dry bulk shipping – the majority of Australian grain exports – higher-priced shipping should underscore Australia’s competitive advantage of being near to South East Asia, she says.

“With strong global demand and high prices cushioning the impact of freight challenges on export demand and margins – plus our close proximity to important grain markets – freight will hopefully not be ‘the fly in the ointment’ for a strong export program in 2021/22.”

To find out more about other Rabobank research, contact Rabobank Moora on 08 9690 8500 or subscribe to RaboResearch Food & Agribusiness Australia & New Zealand on your podcast app.

AN OVERVIEW OF TAXATION ISSUES IN CARBON AG

Judy Snell
Director
RSM

THE Carbon Credits Act 2011 CFI (Carbon Farming Initiative) and supporting regulations established a framework to allow projects which remove carbon dioxide from the atmosphere or avoid emissions of greenhouse gases to generate credits.

Carbon Sequestration is the long term removal, capture or sequestration of carbon dioxide from the atmosphere to slow or reverse atmospheric CO2 pollution to mitigate or reverse climate change.

The projects known as offset projects and the credits are known as Australian Carbon Credit Units (ACCU's).

ACCU's can be sold into a compliance market (entities under the Carbon Pricing Mechanism) or voluntary markets – usually organisations who wish to achieve carbon neutrality.

Approval under the CFI Act is required for offset projects to be recognised and to be eligible to receive ACCU's.

The Project Proponent will be responsible for the sequestration offsets project and must be recognised as a Project Proponent through the Clean Energy Regulator and hold the applicable carbon sequestration right for the project area.

A specific Division within the tax act ITAA 1997 has been written to capture the tax accounting for carbon – Division 420. This Division deals with amounts you can deduct, and amounts included in your assessable income if:

- You acquire a registered emissions unit
- You hold a registered emission unit at the start or the end of the income year
- You dispose of a registered emissions units

What can you claim as the tax payer?

Section 420 -15 allows the deduction of expenditure to the extent that it is incurred in becoming the holder of a registered emission unit.

Section 420-60 allows the cost of registering emissions units.

Section 420-65 provides that any deductions for any expenditure incurred in becoming the holder of a registered emissions unit should be determined within this provision; it further provides that any expenditure incurred in ceasing to hold a registered emissions unit is not deductible.

Sec 420-51 details the value of a registered emissions unit held at the end of the year.

System works on a rolling balance approach, Not dis- similar to trading stock rules but ACCU's are specifically excluded from being trading stock to ensure they are only eligible under Div 420.

Income from sale oof the ACCU's is specifically included in your assessable income; it is not assessable primary production income from a primary production business.

The value of the units is compared at the start and the end of the income year with any increase in value included in assessable income and any decrease allowed as a deduction sub div 420-D.

Deductible expenses incurred in preparing or lodging an application for a certificate of entitlement or an offsets report as part of the process of becoming the holder of ACCU's.

Three valuation methods for registering emissions units:

- FIFO – First In First Out
- Actual Cost
- Market Value

Section 40J is the section where the establishment costs etc are claimed.

Specific conditions under s40J – allows the cost of establishing a qualifying carbon sink forest on the same basis as horticultural plan at 7% over 14 years and 105 days.

The conditions are:

- No carbon sink forest on the land at 1 January 1990
- The tax payer is carrying on a business
- The primary and principal purpose of establishing the trees is carbon sequestration
- The person who incurs the expenditure must be an owner of the land on which the trees grow of the land or a licensee of the land

You may be able to claim a deduction for the establishment expenditure, which is expenditure that is of a capital kind and cannot be claimed on a one-off basis. The establishment expenditure includes expenses incurred in:

- Acquiring the trees or seeds
- Raising tree seedlings in pots and potting mixtures
- Grafting trees and germinating seedlings
- Allowing seeds to germinate (whether by broadcasting, deliberate regeneration or planting seeds directly)
- Preparing the area for planting (for example, ploughing, scarifying, contouring, top dressing, fertilizing, weed spraying, stone removal and top soil enhancement)
- Planting the trees or seeds
- Surveying the planted area.

For example

Fred the Farmer established a carbon sink in September 2021 all the costs including the seed acquisition; establishing the seed in the pots and then preparing the land for planting which included scarifying; top dressing and weed spraying.

Fred thought he could claim the fencing of the plot and fire breaks but that is not eligible under this section.

Fred can claim this for the next 13 years and then on the 15th year he claims a partial payment or the balance for 105 days.

Fred has to complete a NAT 72196 notice – Notice of establishment of trees in a carbon sink forest.

The notice of establishment of trees in a carbon sink forest must be completed and lodged either when Fred lodges his tax return or within 5 months EOFY.

Fred can't claim under s40J the fencing or water facilities for the trees or road and firebreaks with the forest
The cost of maintaining the trees and running the sequestration business will be immediately deductible as operational expenses.

The proceeds of selling an ACCU will be assessable income on revenue account in the income year the ACCU is sold or surrendered.

A carbon sequestration right is a CGT (Capital Gains Tax) asset. There are CGT consequences of trading carbon sequestration rights, which will depend on the facts and the manner in which you trade. For example, selling a carbon sequestration right to another entity before the end of the contract will trigger a CGT event as the sale will result in a change of ownership.

This area of taxation is complex, and we recommend you discuss with your tax accountant before entering into any carbon related contract. Your local RSM Accountant is familiar with the latest taxation knowledge and able to give support and advice in this area

CANOLA DESICCATION

Tristan Clarke
Agronomist
Elders Scholz Rural

WITH a record canola planting this year many of you may be wondering how you are going to cover all those hectares. Big bulky crops and handy prices at the moment may mean many of you are not bothered if you have to harvest at 2km/hr but the risk of loosing it all from a hot windy day is pretty significant.

Crop topping may be the answer to reduce this risk and add some weed control but how do we optimise this? Timing is very important and can make all the difference between a successful job and a disappointing finish. The below products are the only registered products for use with recommended rates and timing.

Product	Rate	Timing	Comments
Reglone	1.5-3L/ha + 0.2% wetter	Apply when 70% of pods are yellow and seeds are brown/black.	Reglone will not aid in controlling grass weeds. Higher water rate the better. Harvest WHP – 4 days.
Weedmaster DST	1.4-4.1L/ha	Apply when at least 20% of seeds in pod have changed to a dark brown/black colour.	Can aid in controlling late germinations of weeds, high water rates critical. Harvest WHP – 5 days. Can be used in TT, RR, Clearfield and Truflex crops.
Crucial	1.1-3.2L/ha	Apply when at least 20% of seeds in pod have changed to a dark brown/black colour.	Can aid in controlling late germinations of weeds, high water rates critical. Harvest WHP – 5 days. Can be used in TT, RR, Clearfield and Truflex crops.
Roundup Ultra Max	1.2-3.4L/ha	Apply when at least 20% of seeds in pod have changed to a dark brown/black colour.	Can aid in controlling late germinations of weeds, high water rates critical. Harvest WHP – 5 days. Can be used in TT, RR, Clearfield and Truflex crops.

It is crucial that timing of these applications is correctly identified to avoid yield loss or issues with maximum residue limits. Ensure samples are taken from many different parts of the plant to avoid confusion in timing. There are many online tools that can help in identifying crop colour change and I encourage you to look at these or speak to your agronomist before making a decision on desiccation. DO NOT use desiccation on crops intended for seed next year as the viability may be compromised.

SCHOLZ RURAL

BUDGETING BUSINESS RHYTHM

Nanda Aung
Marketing Executive
Agrimaster

OUR philosophy is "Do small things often rather than big things less often..."

To do small things often you need to establish a business rhythm.

Once you're in the habit of checking in with your cashbook and budget frequently, it's just easier to adapt to change.

Remember that circumstances change, and budgets are not set in stone. It is good practice to review your budget monthly.

With Agrimaster you can make changes to one part of your budget – say that it's the sale price of your grain harvest, for example – and the entirety of your budget will update.

These intuitive calculations will help you manage your farm business and forecast all possible outcomes.

A budget is the same: it can change daily, and you'll need to make it part of your regular reviewing process.

Be realistic! It can be tempting to overestimate your income and generate a healthy-looking budget, but it's not realistic.

It's better to overestimate your costs and underestimate your income so that you can see what the worst-case scenario may look like. Being prepared is invaluable!

Ideally, you make minor or major updates every four weeks and after your monthly cashbook reconciliation process. It may seem like a lot but checking regularly means that you'll always know what to expect.

This is exactly how you can get the most out of your budget!

Small but often is the trick to financial control. When change happens, you can manage that shift quickly by editing your budget and worksheets and seeing the reactions that follow, because you've been keeping to your business rhythm and don't have months of changes to update.

Questions you can then ask yourself are, for example, if the grain price should dip one year, or, if your equipment needed urgent replacement, how would your cash flow be affected? Would you need to change sale dates to?

To get the most out of your budget, click the link here for a free Agrimaster Full Budget Training.

agrimaster®
Agribusiness accounting software

SUMMER WEED SURVEY OF WA CROPPING DISTRICTS

Abstract from final report GRDC

Summer weeds continue to be highly prevalent in the Western Australian cropping region and reported as an issue by multiple grower networks. Declining winter and increasing summer rainfall in southern Australia increases the chances of summer weeds becoming an increasing problem for grain growers trying to conserve falls in summer.

Most weed surveys have been conducted along roadsides and the last in-paddock survey in WA was conducted in 2006 over a single season.

In response, the Summer Weed survey of WA cropping districts commenced. In-paddock surveys were conducted in 197 paddocks over the summers of 2019-20 and 2020-21 to identify the diversity and abundance of summer weed species present across the GRDC Western region. Surveys covered the 6 agro-ecological zones (Agzones).

Over the two annual surveys 57 broadleaf, 16 grass and one monocotyledon weed species and 13 volunteer crop and pasture species were identified. Volunteer crop and pasture species tended to be the most abundant and had the highest incidence as was observed in the 2006 survey. Eight weed species identified in 2019-20 were not found in 2020-21. Eleven weed species found in 2020-21 were not found during the previous survey.

Weed abundance and diversity varied between years and Agzones. There were fewer species identified in 2020-21.

Barley (Hordeum vulgare), wheat (Triticum aestivum) and annual ryegrass (Lolium rigidum) were consistently the most frequent grass species followed by the native weed species stink grass (Eragrostis cilianensis) and small burrgrass (Tragus australiensis). Grass diversity was generally lower than that of broadleaves, although inter-zone variability was less. Grass abundance was lower in 2020-21. Agzone 1 was the least diverse with four grass species while Agzone 4 was the most diverse with 12 species.

The five most abundant broadleaf weeds were capeweed (Arctotheca calendula), mintweed (Dysphania pumilio), paddy melon (Cucumis myriocarpus), Afghan melon (Citrullus amarus), and small-flowered mallow (Malva parviflora). In both years, the majority of flaxleaf fleabane (Conyza bonariensis), wireweed (Polygonum aviculare) and jersey cudweed (Pseudognaphalium luteoalbum) were large plants that had established in spring in the previous winter crop and had not been controlled prior to harvest.

Species that had a more northern distribution include tarvine (Boerhavia coccinea), sandplain lupin (Lupinus consentinii), button grass (Dactyloctenium radulans) and mulla mulla (Ptilotus polystachyus). Species more common towards the south include blackberry nightshade (Solanum nigrum), fleabane, sowthistle (Sonchus oleraceus) and common heliotrope (Heliotropium europaeum).

This research has shown that a wide range of climatic and environmental factors dictate the occurrence for specific weeds. Differences in the surveys between years shows the importance of multi-year projects involving weeds. This project also highlights the paucity of good information on the effects of stubble cover over summer on weed germination and establishment and reinforces the importance of management of green bridges in summer, highlighting the need for a GRDC extension effort on green bridge management.

Other outcomes include the training of five early career DPIRD agronomists in weed identification and survey technique.

Distribution maps of the seven most common and one potential problem weed species were also produced and found in the full report.

Table 4. The percentage of paddocks in which weed species (excluding crop and pasture volunteers) were found. A cut off of 10% averaged over both seasons applies. The percentage is calculated on a per Agzone basis.

Species	2019-2020	2020-2021	Average both seasons
Paddy melon	57.7	50.3	54.0
Mintweed	49.5	35.8	42.7
Afghan melon	43.2	36.2	39.7
Capeweed	44.7	26.2	36.3
Mallow	31.2	28.3	29.8
Annual ryegrass	30.5	18.6	25.1
Caltrop	21.7	30.0	25.0
Wild radish	27.2	20.5	23.8
Small burrgrass	22.0	31.0	23.8
Stink grass	26.0	20.4	23.2
Tarvine	22.0	17.3	19.7
Fleabane	14.4	23.4	18.9
Flatweed	15.7	23.8	18.9
Wild turnip	20.5	16.5	18.5
Sandplain lupin	15.0	23.0	18.2
Sowthistle	16.2	20.2	18.0
Mulla Mulla	22.0	15.8	17.0
Roly-poly	14.0	19.3	16.3
Long storksbill	18.3	9.8	14.0
Blackberry nightshade	12.8	15.7	14.0
Pigweed	10.8	31.0	13.7
Wireweed	10.5	16.5	13.5
Caustic weed	12.7	13.5	13.1
Afghan thistle	10.0	14.5	12.6
Barley grass	9.8	10.3	10.0

Table 5. The percentage of paddocks weed species (excluding crop and pasture volunteers) we found per Agzone averaged over both seasons . A cut off of 10% averaged over both seasons applies. The percentage is calculated on a per Agzone basis.

	Agzone						
Species	**1**	**2**	**3**	**4**	**5**	**6**	**Average**
Paddy melon	29.0	**59.5**	**64.0**	64.5	**56.5**	50.5	54
Mintweed	41.0	47.0	49.5	25.5	30.5	**62.5**	43
Afghan melon	**46.0**	50.0	44.0	43.5	13.5	41.0	40
Capeweed	17.0	56.0	49.0	33.0	28.0	12.0	36
Mallow	24.0	25.5	43.5	16.5	36.5	32.5	30
Annual ryegrass	11.0	35.0	28.5	18.0	32.0	19.0	25
Caltrop	26.5	19.0	7.0	**66.5**	6.0	7.0	25
Wild radish	44.0	28.0	14.5	34.5	8.5	13.5	24
Small burrgrass		6.0		49.0	12.0	3.0	24
Stink grass		14.0	7.0	32.5	40.5	22.0	23
Tarvine	29.0	8.5		21.5			20
Fleabane	18.5	7.0	16.5		18.5	34.0	19
Flatweed	6.0	21.0	20.0	7.0	19.5	27.5	19
Wild turnip		17.0		18.0	31.5	7.5	19
Sandplain lupin	38.5	5.0		4.0			18
Sowthistle	6.0	8.5	15.0	7.0	25.5	40.0	18
Mulla Mulla	26.5	13.0		14.0	5.0		17
Roly-poly	18.0	9.5		25.5	7.0		16
Long storksbill		6.0	20.0		11.0	19.0	14
Blackberry nightshade		2.0	11.0	4.0	2.0	34.0	14
Pigweed	24.0	6.0	4.0	19.0	5.0	14.0	14
Wireweed		6.0	7.5		18.5	22.0	14
Caustic weed		6.0	11.0	16.0	18.5		13
Afghan thistle	31.0	5.0		21.5	2.0		13
Barley grass		8.5	16.0	11.0	12.5	2.5	10

LIEBE GROUP TEAM

Executive Officer
Katrina Venticinque
0400 941 412
eo@liebegroup.org.au

Research & Development Coordinator
Judy Storer
0448 476 925
research@liebegroup.org.au

Administration & Communications Officer
Danielle Hipwell
(08) 9661 1907
admin@liebegroup.org.au

Administration Assistant
Lisa-May Shaw
(08) 9661 1907
office@liebegroup.org.au

Finance Manager
Sophie Carlshausen
sophie@liebegroup.org.au

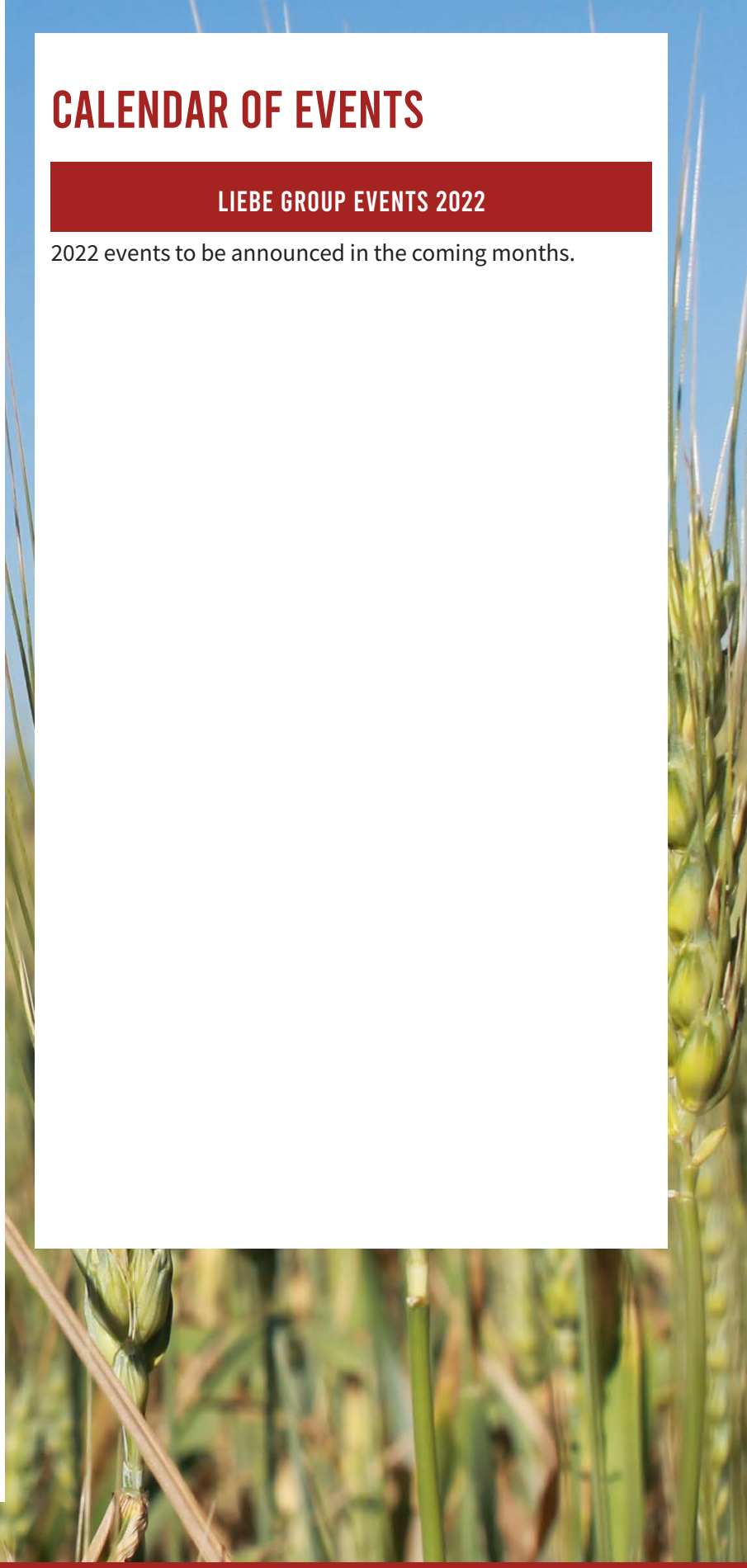
Liebe Group
PO Box 340, Dalwallinu WA 6609
Phone: (08) 9661 1907

www.liebegroup.org.au

CALENDAR OF EVENTS

LIEBE GROUP EVENTS 2022

2022 events to be announced in the coming months.



Disclaimer:
Any recommendations, suggestions or opinions in this publication do not necessarily represent the policy or views of the Liebe Group. No person should act on the basis of the contents of this publication without first obtaining specific independent professional advice. The Liebe Group will not be liable for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on the information in this publication. Reproduction of articles is generally permitted, however, please seek approval from the Liebe Group before doing so.