NEWSLETTER

NO 53



JUNE 2022

PERENNIAL PASTURESYSTEMS

MAKING PASTURE GO THE DISTANCE

PPS NEWS

PPS Annual Conference; 23rd of August; Ararat Town Hall **PPS Annual Dinner;** following conference at Ararat RSL

PPS Annual Conference; The PPS Annual Conference will take place on August 23rd with the theme "*Cracking on from Covid; Farming on a High*" having a forward looking focus. The conference will feature research topics from the University of New England Smart Farms and NSW Dept of Primary Industries and MLA with guest presenters; Dr Rachelle Hergenham, Richard Hayes and Laura Garland. Findings and actions from the PPS feed quality project will be assessed by Jess Revell from Rumenate Livestock Services and insights into the outlook for farm input costs will covered by Matt Dalgleish and Andrew Whitelaw from Thomas Elder Markets. The conference will conclude with a tour of Ararat agricultural machinery manufacturer; A F Gason P/L. The PPS Annual Dinner at the Ararat RSL will follow, with a presentation by noted meat market analyst, Simon Quilty, who will tell of his early world travels which promise to be a tale of adventure.

PPS Annual Study Tour; The tour will follow the lamb & cropping focus planned for last year and will travel to leading Wimmera farms on September 13th & 14th with an overnight stay in Horsham, details will be sent to members in early July. PPS Events; The PPS calendar is getting busy, see upcoming events on page four.

PPS Winter Farm Tour; The tour was held on June 5th with 36 members & guests attending, see report on page four. **PPS Membership;** Recent new memberships have taken the number of farm businesses who have joined PPS since its formation to two hundred. Some businesses have discontinued their membership due to retirements, farm sales & enterprise change leaving the current membership at one hundred and fifty plus thirty agribusiness members.

PPS Projects; The final report for the "Annual grass control in perennial pastures" EPDS project has been completed and submitted to Agriculture Victoria & MLA for approval before its release. Measurements for the fescue project have commenced for this year and the annual survival estimations from the Eversley & Tottington Pasture Variety Trials have been recorded; the results will be in the September newsletter. All other projects are progressing well and members will be kept up to date with reports during the year.

NZ Ag Visit; Current & past members of the Management Committee and PPS managers met with a delegation of Agricultue Vic & NZ Agriculture and Investment Services managers on May 11th to discuss agricultural extension in the PPS region. Thanks to the "Tirranna" team at Mt Cole Creek for hosting the meeting.

Better Beef Visit; PPS hosted members of four Better Beef groups from the Upper Murray region at "Millbanks" Elmhurst on May 20th during a study tour to western Victoria. Ben & Jodie Greene gave a great outline of their bull beef & trade cattle operation; sheep got a mention as well. The visitors were most impressed with the high quality pastures inspected; they commented that the views of the hills have similarities to their home farms. They get a bit more rain though!

Drought Hub; PPS has had discussions with a consultant conducting research for the Federal Govt Drought Hub project. Ideas for potential PPS involvement were put forward and a paper on social research into the effect of drought on farm families was prepared and submitted. There is further information on page three of the newsletter.

Market Outlook Webinar; PPS held a market outlook webinar with Rob Herrmann from Mercardo in May. It was an interesting session with reasonably positive outlook for ag products especially sheep meats, but there are plenty of external factors in the world currently making things unpredictable. Rob again donated his fee to the Kasenda Village Project in Uganda.

K article; "Potassium in Plants" information is included on pages 6 & 7 with the permission of Agriculture Victoria. PPS email; The PPS Project Manager email is changing; the new email is - yadin061@tpg.com.au



Big contrast this autumn in the region. Most farms east of Ararat & Stawell have had a good autumn break. The area to the west is much drier.

Left; 11th May at "Marenda" Mt Dryden.

Right; 10th March at "Gollops" Avoca.



PPS Fescue Project; MLA L.PDS.2004 - Fescue; a Low Rainfall Pasture Tool?

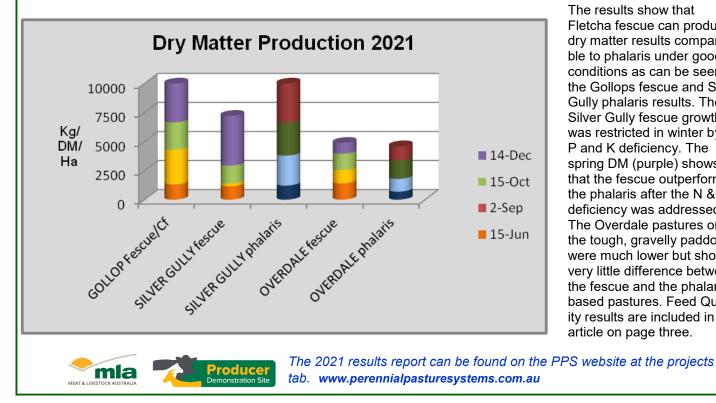
Aim; to demonstrate that winter active fescue can be a valuable pasture systems tool in the <550mm rainfall zone in Victoria. 2021 Results Report

From trials previously conducted, PPS members concluded that winter active fescue could be a productive and persistent perennial grass option for use in below 550 mm rainfall zone, where phalaris had historically been used with success. PPS members considered that the traits that winter active fescue exhibits, may make it a useful perennial grass in the drier regions where its rapid early spring growth could be harvested by stock whilst at the same time allowing other perennial pasture species/varieties to be rested to maximize growth to be utilised in later spring and summer.

Three of the sites established in 2020 were measured for dry matter production and two of the sites had a comparison phalaris based pasture measured as well. The Rosehill (Paradise) site wasn't measured for dry matter production due to the annual ryegrass issues which would have compromised DM results. The site provided a useful comparison between varieties for feed quality testing.

The Silver Gully (Winjallok) and Gollops (Avoca) sites have clay loamy soil; the Overdale (Concongella) sites have a sandy loam with a high gravel content with has the tendency to lose soil moisture rapidly. Gollops has Uplands Cocksfoot in the grass mix.

Dry Matter was measured by mowing plots protected from grazing by pasture cages then drying and weighing the measured samples. Note: the December dry matter measurement at Gollops was an estimate after lambs, which were very healthy on the fescue/cocksfoot pasture, managed to move the pasture cages and graze under them.



The results show that Fletcha fescue can produce dry matter results comparable to phalaris under good conditions as can be seen by the Gollops fescue and Silver Gully phalaris results. The Silver Gully fescue growth was restricted in winter by a P and K deficiency. The spring DM (purple) shows that the fescue outperformed the phalaris after the N & K deficiency was addressed. The Overdale pastures on the tough, gravelly paddocks were much lower but showed very little difference between the fescue and the phalaris based pastures. Feed Quality results are included in the article on page three.

Drought Hub Project

The Drought Resilience Adoption & Innovation Planning is a program funded by the Australian Government working with state and territory governments to support regional drought resilience plans to prepare for and manage future drought risks. In Victoria the Drought Resilience Adoption and Innovation Hub includes five regional nodes, each coordinated by a locally based, community agricultural organisation. In our area it is Southern Farming Systems (SFS). They will deliver targeted regional activities and outputs whilst contributing to coordinated Hub impacts across the whole of Victoria. The Hub is supporting agriculture, environment, communities, and regions to adapt, reorganise, and transform so they are better prepared and more resilient to the impacts of drought.

PPS have put forward a project that is currently in the conception stage with Cam Nicholson (SFS) and relevant experts from Federation University. Debbie Shea (G&G facilitator) is the PPS representative working on the design of the study. The project proposal is to investigate the effects on the younger members of the farming family experiencing stressful periods especially drought; focusing on the mental health and well being on that dynamics within the family farming unit. Under consideration is a retrospective approach to interview individuals that lived through drought as a young teenager and to review what impacts they experienced and what help or support would have been useful at the time. This would include those that have stayed on farm and those that have chosen a different career path. If this pilot research project results in significant information it has the potential to be expanded across Victoria.

PPS hope the learning's from the project will convert to outcomes that will empower PPS members and others in the farming family unit to be better prepared and more resilient, minimising the negative impacts on mental health and wellbeing when the next drought happens.

Sustainable pasture grazing management through feed quality measurement 2021 Project Results Report;

The project is providing evidence based science for producers to identify plant quality loss before it effects animal production. The increasing variability of rainfall and rapid decrease in pasture quality makes the timing of late spring grazing crucial to maintaining sustainable grazing systems. The aim of the project is to provide quantitative pasture quality information to farmers to assist in maintaining healthy, productive & sustainable grazing systems. This will have a positive outcome for animal, pasture & soil management by assisting farm managers to identify when pasture quality falls below animal requirements & allow better targeted supplementary feed programs and pasture rotations.

Methodology; Forty pasture types were selected for testing from PPS member farms representing the different climatic conditions & soil types within the region. Feed samples were taken from single varieties as well as mixed pasture swards and pasture composition was recorded. Sampling was commenced on September 25th 2021 & the final samples were collected in the week of January 3rd 2022. All samples were sent to FeedTesttm; Werribee for feed quality analysis.

Feed quality results for crude protein, energy & digestibility were assessed against sheep requirements and approximate dates that the feed quality category declined below that required for the classes of sheep were recorded. *The graphs & map are reprinted in a larger format for better viewing on pages 10 & 11.*

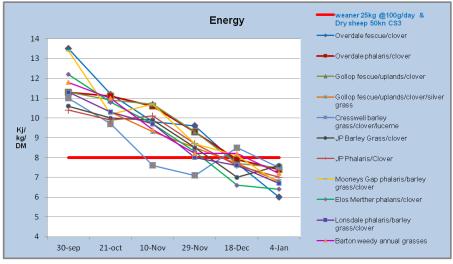


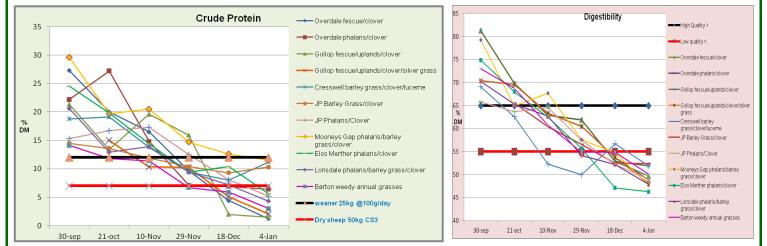
It should be noted that other classes of sheep or those needing higher growth rates may have higher requirements. It should also be noted that grazing has an effect on feed quality and that pastures which are actively growing will have a higher feed quality than those which are running to seed.

Single species were also assessed & further results can be accessed in the results report on the PPS website under projects.

www.perennialpasturesystems.com.au

The results will be analysed in a PPS conference presentation on August 23rd by animal nutritionist Jess Revell from Rumenate Livestock Services.





~ PPS DIARY DATES ~

PPS 13th Annual Conference; Ararat Town Hall; Ararat, Tuesday August 23rd.

PPS 13th Annual Study Tour; Grain & Lamb tour; Wimmera region, Tuesday 13th - Wednesday 14th September. Excellent Farming: Crops (& lambs), People, Money & You; Workshop with Dr Kate Burke (Think Agri) & Dale Boyd (Ag Vic); Tuesday 14th June, Magdala Motor Inn, 3149 Western Hwy, Stawell West. 3pm - 6pm. Smoko provided. Social Dinner to follow (dinner & drinks at attendees own expense). See flier on page 9.

PPS Seeder Demo; Elmhurst area, July, Date TBA

PPS End of Year; Venue TBA, Friday November 25th

Girls & Grass group

Business Workshop, Session 2; 1.15pm—4pm Sunday June 19th; Business Structure, Ararat – See flier on page 9.

Ladies Social Night; 6pm Wednesday 13th July, Guest Speaker Jackie Elliot, Ararat Racecourse function room. Catering by Paula Symons read more on Jackie and Paula in the G&G report on page 5 - see flier on page 9.

Accredited First Aid Course; full day Sunday 17th July - trainer Casey Kosch. – see flier on page 9. Coffee and Conversation; Tuesday 9th August – 10.30pm, Ararat Hotel, Café and Bistro, 130 Barkly Street, Ararat. Guest Pam Wood from the Amasiko Partnership. Like Rob Herrmann, this group is assisting the Uganda villages in Kasenda to become more self sufficient. Pam and her group relates more with the female villagers.

Video link copy & paste into your browser. https://drive.google.com/file/d/198sJHc3q60vMnAFsrd6Wcsxc-guhBcy5/view Non PPS Events BestWool/BestLamb & Better Beef Conference; 15 & 16 June; Bendigo

Grasslands Society Annual Conference; 12 -14 July at Lardner Park; 155 Burnt Store Rd, Lardner.

PPS Winter Farm Tour Sunday June 5th

Thirty six members & guests took on some wintery conditions on the PPS Winter Farm Tour on Sunday June 5th. It was well worth rugging up to learn about the 3,550 Ha Mt Hesse Station near Winchelsea. Mt Hesse manager, & PPS member, David Kininmonth is the last family member to be involved in the property since the family purchased it in 1882. Mt Hesse was sold to the German Südwolle Group in 2002 & David stayed on as station manager. He is retiring from the position at the end of June leaving behind a highly profitable Merino operation.

The day started with a warming lunch prepared by the Barwon Hunt Club, followed by an informative talk from David on the history of Mt Hesse, the current focus on highly productive pasture systems, timely use of grazing charts and flexible rotational grazing to combine high production and sustainability. The grazing system allows 18,000 scanned ewes to be lambed down with a further 9,000 dry sheep plus trade cattle used to manage stocking rates. Around twelve years ago, a decision was made to replace older phalaris pastures with Holdfast GT & Advanced AT cultivars. The new pastures, along with sub clover as well as ryegrass and chicory in some paddocks have raised the stocking rate to 36,000 dse; the aim is to add another 2,000 ewes to this. Extensive rock clearing has made this possible and newer pastures are managed in spring and early summer to get them to targeted dm/Ha before they are destocked; areas of the farm which have older pastures and containment areas are then used until the autumn break. A tour of the farm with stops in the highly productive pastures was led by David. He was assisted by the farm's agronomist, Annieka Paridaen from Premier Ag; and they imparted the Mt Hesse pasture plans and management. Lisa Miller from SFS, provided some technical information based on the MLA Pasture Paramedic program; many of the Pasture Paramedic technical information documents went home with PPS members.

The tour finished at the Mt Hesse woolshed, which dates back to 1852, & PPS president, Matt, thanked David for his hospitality and passing on of his knowledge into pasture management. A further report and case study will be included in the Sept newsletter. The Winter Farm Tour was Supported by GHCMA through funding from the National Landcare Program & MLA.





PERENNIAL PASTURE SYSTEMS www.perennialpasturesystems.com.au

CONTACT— PROJECT MANAGER— Rob Shea ph 0438 521357 yadin061@tpg.com.au (new email) **GIRLS & GRASS FACILITATOR—Debbie Shea** 0418 205353 debbiejshea@gmail.com

care Victoria Grant.

The 2021 results report is available at ;

ebf5c9 ec705f35fdf1438d9bed0c80e4706788.pdf

early January feed sampling at "Barton" Moyston

Sustainable pasture grazing management through feed quality measurement Project.

https://ebf5c96e-3b61-46cf-9360-8ce427595e48.usrfiles.com/ugd/

A summary of the project will be presented by Jess Revell from Rumenate Animal Health at the PPS Annual Conference.

The Project is supported by WCMA through funding from a Land-





Girls & Grass Report



Eight PPS members enjoyed lunch at Flame Brothers Smokehouse in Halls Gap on Friday 27th May. This was a very informal event with everyone happy to just catch up and discuss current issues.



Lunch at Flame Brothers Smokehouse

Girls & Grass Business Workshop; Session 2. Business Structure was unfortunately postponed due the presenter contracting Covid. Stacey Shelden, Coggergurry Chartered Accountants, has made a full recovery and the workshop will go ahead on Sunday 19th June. At this workshop we will discuss the merits of different business structures from sole trader through to a family trust. The discussion will also cover the forward impacts these structures have on individual wills and succession planning.

The Ladies Social Night on 13th July is set to be a great fun evening out. Speaker Jackie Elliot is no stranger to women in agriculture having founded the Rural Women's Day. She is also co-presenter of the podcasts "Ducks on the Pond". We will be in for a perfect treat with catering by Paula Symons. Paula has gained a great reputation for her food. In fact, she has no need to advertise as her clientele is all from word of mouth. Paula established a catering business in London but after 14 years returned to the family home in Lake Bolac.

The lunch in Halls Gap, the Business workshops and the Ladies Social night have been supported by the Glenelg Hopkins Catchment Management Authority through the National Landcare Program.







PPS and Girls & Grass continue to promote agriculture as a great career choice, recently offering to host students via introduction with the Structured Workplace Learning Program online portal. Nerissa Gee from Central Grampians Local Learning Employment Network has been a very enthusiastic supporter for this program. We are offering to host students at any of the PPS/G&G events, to spend time with the Project Manger and/or the Girls & Grass facilitator.

The Wimmera Catchment Management Authority has commenced a series of podcasts under the project called 'Farming for soil health'. PPS member Jodie Greene was the first to be interviewed for the series her podcast is titled 'Jodie Greene on farming in the upper catchment of the Wimmera River'. You can hear what Jodie has to say here:http://wcma.vic.gov.au/publications/podcast



Girls & Grass Advisory Group is proudly supported by Rural Bank.





CGLLEN Girls & Grass AG have commenced discussions with Nerissa Gee, Partnerships and Pathways Coordinator, with Central Grampians Local Learning and Employment Network. Nerissa, is always searching for new work placement opportunities for VET students especially to do with agriculture. PPS & Girls & Grass would like to encourage farmers and agriculture service providers to consider hosting a student from year 11 or 12. This would help them to gain valuable experience and encourage them on a path to working in agriculture.

- Other opportunities to support students through CGLLEN include:
- Mentoring a student for an hour a fortnight.
- Speaking/presenting information to school groups about your work
- TAC L2P Program. Stawell, St Arnaud, Ararat and Beaufort to help young people gain supervised driving experience. If you are interested in being involved or would like more information please contact G&G facilitator, Debbie on 04180205353

PPS Profiles

The profiles of the current G & G Advisory Group members in previous newsletters created a lot of interest. Following this theme in each newsletter there will be a self-written profile of a female PPS member. This time it is Elia Pirtle & she has included her partner, Jame Maino. Elia & James are research scientists and joined PPS when they purchased a small farm at Rhymney near Ararat.

Elia hails originally from Reno, Nevada, where she grew up in the desert surrounded by a menagerie of animals and a love of the outdoors. She completed her honours thesis on dinosaurs, creating a timeline of fossil records to look at patterns of diversity approaching the KT extinction event. After graduating from her Bachelor's degree in Biology, she left her hometown of Reno, Nevada for Australia, to pursue a PhD focused on reptiles at the University of Melbourne, which was the same lab where James was completing his PhD.

James grew up in the north eastern suburbs of Melbourne on a small farm. He's always liked maths, farming, and the environment, which are perhaps the only common threads connecting his mishmash of educational and vocational experiences that span the arts and sciences. He enjoys playing a range of instruments (poorly), and hiking in the Grampians.

While completing their PhDs together, James studied an, as he describes it, 'obscure' field of mathematical metabolic theory, while Elia studied lizards - or specifically how reptiles stay cool and hydrated under extreme environmental conditions. Her research took her to remote parts of the Australian desert to study the great desert skink, an endangered and incredibly unique large skink, which live together in family units in complex burrows, and share a 'family latrine' on the surface. After they finished their studies, Elia and James both started jobs with Cesar Australia, a sustainable agriculture research company based in Melbourne. Here, Elia collected data in the field, while James crunched the numbers.

Elia's focus at Cesar was primarily on insects and biosecurity - building plans for how to manage exotic insect pests before they arrive, to reduce impacts and costs after an incursion. The work she and her project team had been doing to prepare for exotic leaf miner flies is actually being put to the test as we speak, since two of the exotic species they were preparing for did get into the country since 2020, but luckily the team had already secured a range of emergency use chemical permits that were ready to pull off the shelf, and were able to right away supply the affected growers with identification and management resources.

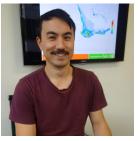
Elia also spent the greater part of a year driving all across south eastern Australia running farm surveys for the relatively recently established Russian wheat aphid, and the beneficial parasitoid wasps that help control their populations.

James' focus at Cesar has been developing quantitative tools to help make better pest management decisions, which include a range of digital tools to support biosecurity or agronomy. James developed maps to help anticipate the regions in which new pests, such as leaf miners or fall armyworm, might become a problem. He also developed some other GRDC funded tools for farmers and agronomists, such as the Russian wheat aphid threshold calculator & the redlegged earth mite hatch tool.



James and Elia have always been in love with the Grampians and moved to Rhymney permanently in May 2020 after having known for a while they wanted to live in this region, which has such a unique overlap in agricultural and natural spaces. These days James is enjoying the quiet and space afforded by rural living in Rhymney and is increasingly looking to develop digital tools that support farming and the environment more broadly.

Elia is now focusing her time on pursuing her long-time passion for science education, working as a contract scientific communicator and illustrator and also making visits to local Primary Schools, such as Pomonal, Navarre and Landsborough, to run insect learning days with the students.



James and Elia are also working on publishing their very first picture book, which they hope will become the first in a series aimed at improving ecological literacy.

Potassium

The following article on Potassium in plants appeared in the March—April 2022 edition of the Agriculture Victoria Publication; Soils Community of Practice Update. It was supplied by Simon Clarendon from NSW DPI Soil and Water Unit and is reprinted in the PPS newsletter with permission from the Update editor.

PPS thanks the editor, Martin Hamilton for his assistance.





Potassium

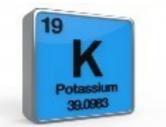
Potassium (K) is very important for plant growth. It is one of the plant three macro-nutrients along with nitrogen and phosphorus. Potassium is important for ATP production (adenosine triphosphate, an energy carrying molecule found in the cells of all living things), responsible for the movement of protein and starch and enzyme activation for photosynthesis. Potassium heavily assists in the control of the opening and closing of stomata, which regulates plant respiration and transpiration (oxygen/carbon dioxide and water vapour). Potassium also lowers cellular osmotic water potential, which increases the water uptake by roots, thereby assisting root development and increases resilience to drought. However, deficient amounts of potassium can stunt plant growth resulting in a reduced yield. If potassium is the limiting factor, it will also affect nitrogen and phosphorus uptake.

Potassium is one of the most abundant elements in soil, but its availability to plants is in part controlled by soil chemistry, minerology and moisture. It is taken up by plants as the positively charged cation K+ from the soil solution. The way in which nutrients are found and available in the soil is often referred to as a pool. A pool is like a storehouse of nutrients. The different pools present in the soil often have different accessibility levels. Potassium is also found in the soil in various pools. The fixed potassium pool is not readily available to plants and is slower releasing, coming from the weathering of minerals in the soil (silicates, micas, feldspars). In contrast there is a highly available pool in the soil solution (water) and a pool of potassium lightly held by the clay and organic matter material in the soil that is part of the cation exchange complex in the soil. Potassium can move to and from the various pools and this movement is governed by BOTH soil chemistry and the weathering of mineral materials.

Potassium is removed from the system at harvest particularly in intensive activities such as hay production. High exports of potassium may require K replacement from fertiliser (surface and foliar applications) to maintain adequate levels for plant production. Potassium is redistributed within farms when stock move paddocks and deposit K in their dung and urine. In intensive grazing systems, of the total K intake of a bovine, dung and urine can account for up to 90 per cent of the potassium.

Continued on page 7





In environmentally sensitive areas where nitrogen and phosphorus are 'leakier', ensuring there is sufficient potassium to maximise plant growth may assist in greater uptake of N and P which could reduce the losses of both. Potassium is not considered an environmental issue when lost to the wider environment, as it does not produce gaseous losses (like nitrogen) into the atmosphere or cause eutrophication in waterways like nitrogen and phosphorus can.

However, potassium like any element, can leach out of the system depending on soil type and climatic conditions. Sandy soils will leach more readily than heavier clay soils, and loams in higher rainfall zones will leach more than those in drier zones.

Therefore, it is important to test your soil regularly and apply fertiliser as required paying attention to the 4 R's, which are 'right source, right rate, right time, and right place'. To assist with determining the right rate, nutrient response curves with critical values for different soil types should be used.

For more information on potassium, you can watch a <u>Recording of a recent webinar</u> as well as sign up for the <u>Soils Network</u> <u>Knowledge Newsletter</u>

Simon Clarendon NSW DPI Soil and Water Unit



Below is a link to sign up to the Soils community of Practice Updates. https://agriculture.vic.gov.au/support-and-resources/newsletters/soils-community-of-practice-newsletter#h2-0





Excellent Farming: Crops, Lambs, People, Money & You

PPS PERENNIALPASTURESYSTEMS

It has been an eventful start to the season in the southern Wimmera with summer rains then a dry autumn so far.

Yet, we are seeing record land prices on the back of good seasons. This seasonal uncertainty won't go away for a while yet and the noise gets louder. Some farmers are pessimistic about the season while others are optimistic.

Managing the external noise and uncertainty with less stress is a skill that can be

This hands-on, interactive 'masterclass' will teach those skills combined with practical risk management. There will be a strong focus on using knowledge from your own farm to help manage the challenges of 2021 and beyond.

🗯 👘 🦢



TOPICS

· What drives your earning potential and profit at the whole farm level?

The influence of climate 'moods' on <u>your</u> farm performance.

How can that knowledge help?

Magdala Motor Inn; Stawell: Tuesday 16th

Social dinner following

attendees own expense) RSVP to Rob - 0438 521357 yadin@netconnect.com.au

Your investment: Your time

and attention. Your mind which is full of

farm production records (and other sources if it's not

June 3 – 6 pm

What to bring

in vour head).

Smoko provided;

(dinner & drinks at

Plus: PPS Soil Probe network

live information connection with Dale Boyd

Productivity potential and measures for mixed farming systems. Presenters:

Dr Kate Burke Dr Kate Burke is rare breed who speaks the language of science, economics and humans. She uses evidence, experience and humour to shine a light on what matters for sustainable, profitable farming.

Kate is the author of 'Crops People Money and You, The Art of Excellent Farming and Better Returns', a book described as 'The Barefoot Investor' for grain crouvers arowers With 30 years' experience i agriculture, working mostly northwest Victoria, Kate is passionate about thriving farming communities.

Dale Boyd;

Agriculture Victoria Dale Boyd is an agronomist in the grains team with Agriculture Victoria based out of Echuca.

He has worked with the department for 20 years and during that time has worked on a range of projects linked to monitoring soil moisture. His current work is a state-wide targeted technology adoption project that uses deep soil moisture projects adworks. noisture probe networks.

