



# PERENNIAL PASTURE SYSTEMS

MAKING PASTURE GO THE DISTANCE

## PPS NEWS

**PPS Annual Meeting;** The PPS Annual Meeting was held on October 14th. It was conducted via Zoom due to COVID19 restrictions. Around 30 members participated and several apologies were received. As it is a non election year, no changes were made to the management committee. Hayden Price presented the treasurer's report & President Duncan Thomas summarised his report, the full version is printed at the end of the newsletter. At the end of the meeting, two presentations by PPS members were shown; they were originally presented at the Grasslands Society 61st Annual Conference. Duncan Thomas presented a session on the final results of the "High Production Annual Forage in Perennial Systems" demonstration. Tess McDougall from Ag Vic, who is assisting in the management of the "Annual Grass Control Strategies in a Perennial Pasture System" project delivered the year one results. Both projects are part of the MLA EPDS & PDS programs; the annual weed project is being conducted in partnership with Agriculture Victoria.



**Management Committee leave of absence;** long time management committee member Ken Hall has been having health issues over the past few months. He has been granted leave of absence from the committee for the foreseeable future. PPS hopes that a new treatment will aid Ken to a full recovery & we wish him all the best with his recuperation.

**Memberships;** There are still a few outstanding membership invoices, so just a reminder if you haven't submitted this years discounted subscription, can you please pay it when convenient.

**Events Update;** Due to COVID19 restrictions most of the PPS 2020 events program was cancelled or postponed. Several events are planned for the first part of 2021 & dates will be announced as soon as possible in the new year.

**Healthy Soils Workshops;** PPS has two "Healthy Soils" sessions ready to go when virus restrictions allow in 2021. Lisa Warn from Warn Ag will lead a discussion on soil test interpretation & how to use the results in fertiliser programs. Dr Helen Hayden from Agriculture Victoria will conduct a workshop on soil microbiology, looking at what is living underneath the surface. The Healthy Soils program is funded by MLA. Dr Nathan Robinson from Federation University will launch the PPS "Soil Test Digitalisation" at one of the sessions. Three member farms have submitted soil test results for the "pilot" of the project and members will be invited to submit soil test data after the launch to have it digitalised for private use or sharing with other members. The project has received funding from Landcare Victoria Grants through the Wimmera CMA. Federation University are also contributing with "in kind" resources.



**Webinar:** PPS will be conducting another market outlook webinar with Rob Herrmann from Mecardo on February 8th at 7pm. Rob will also give an update on the Kasenda Project in Uganda. The project assists villagers in Uganda with projects linked to improved living conditions, access to education and opportunities to enable them to be proudly self-sufficient. Rob will again be donating his presenter fee to the project.



**12<sup>th</sup> "Almost" Annual Conference;** The PPS management committee were hopeful that it could keep the proposed 2020 line up intact. PPS is pleased to announce that all conference presenters have committed to the 2021 conference if circumstances allow. All conference sponsors have also committed for next year; please support them when possible.

**PPS Defibrillator;** PPS was successful in an application to the Ararat Wind Farm Sustainable Community Grants program to purchase a defibrillator to take to PPS events. Hopefully it won't have to be used but it will provide a vital piece of first aid equipment in case of emergency. Thanks to the Ararat Wind Farm for their support.



### Fescue; a low rainfall pasture tool?

The PPS winter active fescue project is showing interesting results.

Demonstration sites at Concongella, Joel South, Paradise, Winjallock & Avoca are being measured as part of the project.

Initial results will be included in the March newsletter. The project is part of the MLA PDS program.

*Left; New fescue pasture at "Overdale" Concongella.*

*Right; New fescue at "Gollops" Avoca*



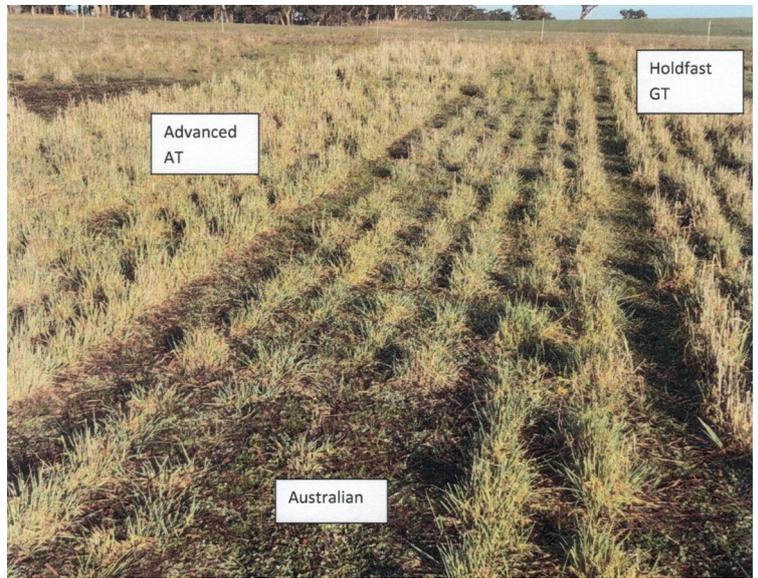
## Joel Joel Plant Variety Demonstration

Tylers Rural established a plant variety demonstration at Joel Joel with a section devoted to perennial grasses. The demonstration was sown over two years in 2015 & 2016. All cultivars established satisfactorily in both years but no establishment counts are available.

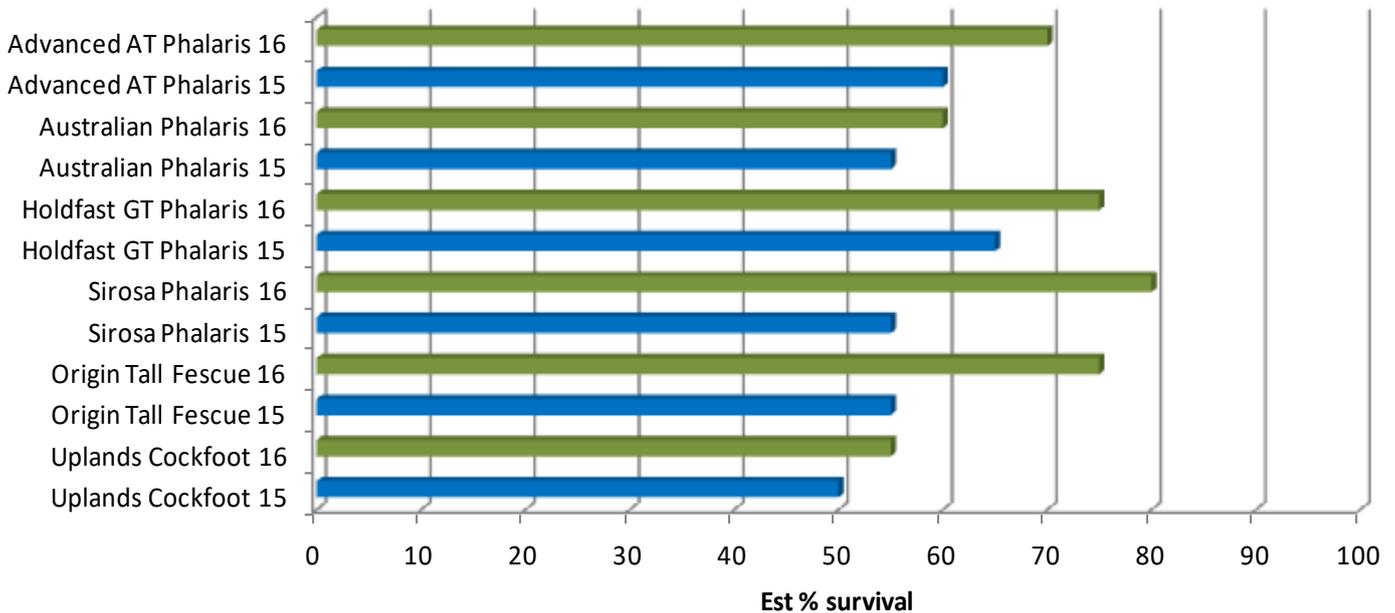
The site was visually assessed for plant survival rates in 2020 and the results are shown in the graph below.

Thanks to Ash de Clifford from Tylers Rural for his assistance with the demonstration observations.

Right; phalaris cultivars at Joel Joel in winter 2020, showing the extra winter growth of Holdfast GT & Advanced AT when compared to Australian.



## Tylers Joel Pasture Variety Demo - August 2020



### Potassium (potash) Deficiency

Potassium (K) deficiency has been noticed in individual Arrowleaf clover plants this spring; they have been in vigorously growing stands; the symptoms are shown in the picture on the right. Potassium is vital for photosynthesis and protein synthesis in plants and helps to breakdown carbohydrates to provide energy for growth. It also assists in movement of metal ions such as iron (Fe). Potassium helps control ionic balance & helps the plant resist disease and withstand drought, cold and frost.

Potassium is a mobile nutrient within the plant. When deficiencies occur, the plant will remove potassium from the older leaves and pump it into the younger leaves, therefore the symptoms will appear on older leaves first. Plants lacking potassium will have speckling along the leaves, spreading quickly to the tip and the margin. Complete senescence (death) of the older leaf may occur.



### PPS Annual Pasture Survey Prize

The 9th annual PPS pasture survey has been conducted; 50 members responded with farm area totalling 74,594Ha analysed. 8.69% of the total area had new pastures or grazing cereals established in 2020. The full survey results will be in the March 2021 PPS newsletter.

Western Quarries; Ararat, provided a truck and dog load of road making crushed rock which was used as a prize draw for PPS members who completed the annual pasture survey.

PPS Management Committee member, Ken Hall has been having a few health issues in 2020 but took time out from his recovery to draw out member, Stuart Robinson from Clunes as the winner.



# Annual grass control strategies in a perennial pasture system project

Tess McDougall; Agriculture Victoria, Ararat & Rob Shea, PPS Project Manager

## Silage as a tool in reducing barley grass

As part of the annual grass control project; PPS investigated a paddock at Ben Nevis Farms; Tulkara. The paddock was sown to Barberia ryegrass but also had a large infestation of barley grass; it was cut and made into silage in October 2019. The pasture composition prior to ensiling is shown in fig.1. The paddock was baled and ensiled into above ground "sausages" which are shown in fig. 2.

The silage made was of good quality and was rated as A2 with estimated metabolisable energy of 11.3 MJ kg/DM and crude protein of 17.3%. This would be good enough for a full ration to a 60 kg ewe with twins at 100 day pregnancy. It is recommended that silage be feed tested prior to feeding out as quality can vary.

Barley grass seed heads were collected from the silage in late summer & tested by Plant Science Consulting for viability; the result showed zero germination.

The pasture was inspected a year after the silage was cut and removed and the photos show the control (uncut) fig. 3 and silage areas fig 4. Fig.5 shows the average difference in seed heads between the control and silage areas.

The result shows that silage may be a valuable tool in reducing barley grass infestation while at the same time providing valuable stored fodder. An Uplands Cocksfoot paddock at "The Oaks"; Crowlands, which had a barley grass infestation was cut for silage this year and will be measured as part of the project.

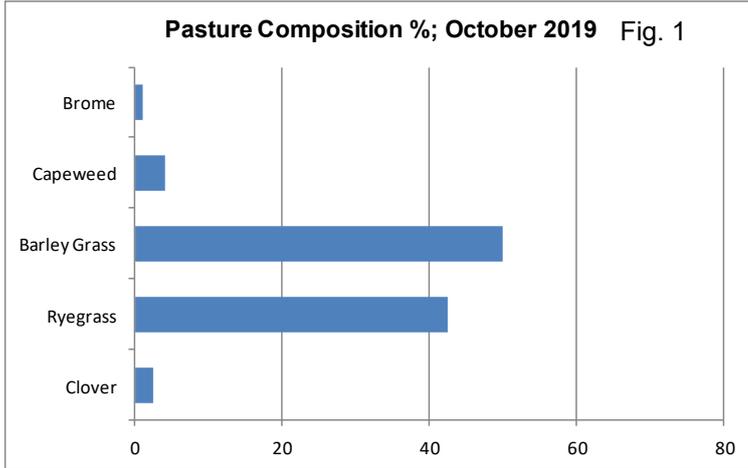


Fig. 2

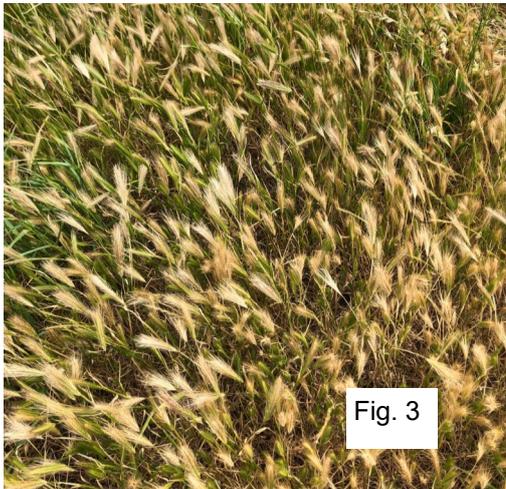


Fig. 3

Pasture on October 12th 2020.

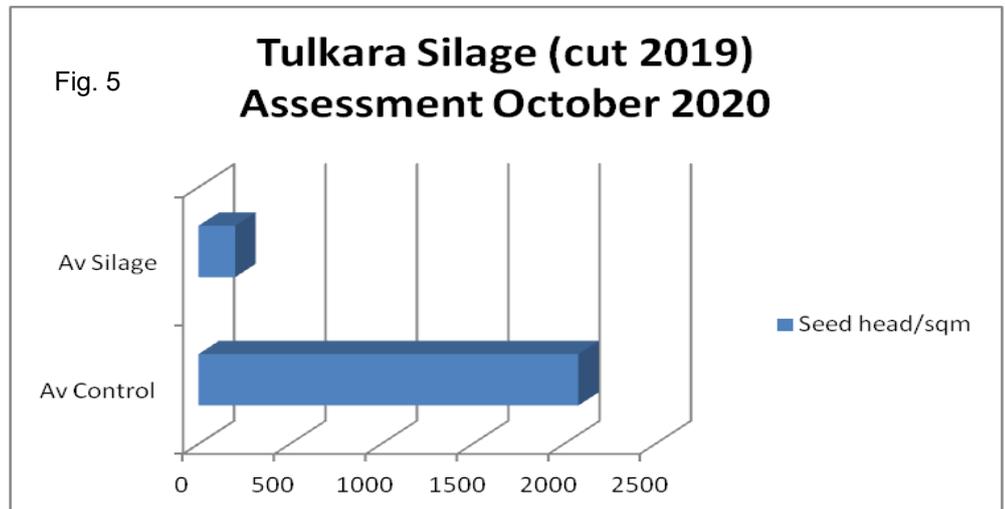
Left; control (not cut for silage).

Right; silage cut area.



Fig. 4

**The Annual grass control strategies in a perennial pasture system project is part of the MLA PDS program & is being conducted in partnership with Agriculture Victoria.**



## ~ PPS DIARY DATES ~

PPS 12th Annual Conference & PPS 12th Annual Study Tour; Postponed until 2021

PPS Market Outlook Webinar (wool, sheep, beef grains) with Rob Herrmann, Mecardo; Monday, Feb 8th, 7PM  
Log in details will be sent to members prior to webinar.

Winter Farm Tour – “Boorook” Woorndoo has been Postponed until further notice.

PPS Healthy Soils Sessions & Market Outlook webinar - Dates TBA in early 2021

PPS Girls & Grass group; Activities on hold due to virus restrictions.

*Retired pasture agronomist, Peter Schroder from Hamilton has contributed his thoughts on sub clover for this month's newsletter. Thanks to Peter for the article.*

### More on sub clover.

I've sown a lot of sub clover in my life, some with fair results but most with pleasing results. I intend to keep sowing it. The first sub clover in south eastern Australia with an identifiable name, which I know of, was Mt Barker; “discovered” in the Adelaide Hills. Bacchus Marsh also appeared about that time. The first oestrogenic sub clover cultivar recognized in south eastern Australia was Yarloop. Its oestrogenic properties were known. It was included in pasture seed mixes in the 1940's and 1950's, at rates up to about 0.5 kg/ha. There were no problems. Yarloop can still be found in very small amounts in very old pastures. The problems with Yarloop erupted when it went to Kangaroo Island after the Second World War. It quickly dominated the pastures. Lambing percentages declined and were often around 10% in aged ewes. The challenge was how to get rid of the Yarloop and what to replace it with. *See below.*

Small plot trials run by Kevin Reed in Hamilton (Victoria) discovered Trikkala sub clover in winter in this trial. It had the highest winter growth, with Yarloop coming second. In spring Leura was the stand out cultivar.

A brilliant grazing trial run by Andrew Craig (SARDI) at Kybybolite S.A. compared Trikkala to Mt Barker. The winter yield advantage of the Trikkala was about double. Trikkala was now the only cultivar to sow.

The results from farm sowings of Trikkala were followed with interest. The results were not good; low seeding rates (average sowing rate 1.9 kg/ha) were identified as the problem. The recommended sowing rate was increased to 10 kg/ha. The change worked like a dream.

The next challenge was to get rid of the Yarloop and replace it with Trikkala. That was not too hard to do using herbicides to stop it setting seed, or a period of cropping, and of course sowing plenty of the new cultivars (10 kg/ha).

On Kangaroo Island the program worked reasonably well but just remember that there could be over 1,000 kg/ha of Yarloop in the soil and only 10 kg Trikkala was being sown. A fair challenge but certainly not impossible; it helps to understand the agronomy that you could be facing.

Trials were run in a number of situations trying all sorts of combination. The stand out result was the Trikkala although it was not always the cultivar which came out on top. Sometimes, in some situations, the Trikkala was favoured by the situations while in others it was not. On rises in Hamilton, Leura did very well while on the low wet ground Trikkala was the best. The cultivars compete with each other. Who wins, and why, are not understood. It's a case of try and see. It is pleasing to see a sub clover breeding program is operating. The new cultivars will have been tested and compared in a standard program. But as far as I know the performance of mixtures, and mixtures of mixtures, are not made. A pity! In the mean time I'll be sowing a mixture of Trikkala and Leura, plus some of the recent releases. I will be using good agronomy practices and before sowing any new pasture I'll be talking to Charlie de Fegley. He knows how to consistently get bankable results with sub clover.

*Below; Trikkala sub clover (photo from Peter's book; “Clover”).*



**PPS President Duncan Thomas presented his report to the PPS Annual Meeting. The report is reprinted on pages 5—7.**

## **PPS President's Report 2020; Duncan Thomas**

Just over a year ago on the 6th of October the Perennial Pasture Systems' Study Tour crossed the border from South Australia back into Victoria. Little did we know then that within a few months this border would be closed, followed by limits on travel within Victoria and eventually for those of us unlucky enough to find ourselves in Melbourne, a 5km radius around home. It is impossible to talk about the year we have had without first acknowledging **COVID-19**.

PPS has long been recognised for successful events with reliably large attendance, allowing us to access some of the best presenters in the industry. The challenges of 2020 have disrupted our schedule of events and challenged how we normally service our members. While our projects and normal publications have been largely unaffected, the committee have had to make some very difficult decisions this year regarding events, all while meeting virtually. Significant changes have included cancelling or postponing our three key events for 2020, the Annual Conference, Study Tour, and Winter Farm Tour. In lieu of these events, PPS has run four webinars which are discussed in more detail below.

In acknowledgement of our limited ability to host our normal schedule of events, the committee also decided to halve the membership fee for the coming year. While there was no doubt that a PPS membership would continue to provide an enormous return on investment, the committee felt it was important to demonstrate to members that as always, we had them front of mind.

I would also like to take this opportunity to personally thank our conference sponsors who have all committed to supporting our 2021 conference. We are grateful to these businesses and encourage you to support them when you can.

To round out the discussion on COVID-19, I would like to personally thank the PPS members for embracing the virtual events held this year and continuing to support this community of ours.

**Community** is an integral part of PPS, our events are as much about socialising as they are sharing information and learning. They are opportunities to get together and build friendships with a group of people who are sharing similar experiences. On the 29th of November 2019, 68 members attended the end of year event at the Maconachie Family's "*Challicum View*" property at Ballyrogan. The farm tour included a tour of the hill country, high production annual and long term phalaris, and finally a grazing trial comparing red and white wheat. This trial later formed part of the PPS *High Production Annual Forages in Perennial Systems* Producer Demonstration Site (PDS). In the evening Tricia Sweeney gave the group a pertinent health presentation based on her own experience while the Grampians Pyrenees Primary Care Partnership (PCP) "*FARMher*" project was on display for all including posters of nineteen female PPS members.

To round out 2019, PPS were honoured to receive the Agribusiness award in the East Grampians Business Awards. The award was sponsored by Ararat Rural City Council and presented by Mayor Cr Jo Armstrong.

The summer of 2019-2020 is one many in Australia would like to forget. The PPS community came together to donate fodder, fencing materials, cash, freight and importantly their time to those affected by the devastating bushfires. Donations went to Gippsland, Kangaroo Island, and locally to Lexton. Special mentions are needed for Stuart Robinson and Corey Price who contributed a lot of their own time and energy to the cause and were instrumental in its success.

As 2020 progressed further it became clear that the fires would not be the only challenge confronted this year. Under COVID-19 lockdown, PPS conducted four webinars which were well attended by members. Tim Leeming presented on increasing lambing percentages including conception, survival and the importance of mob size. Michelle Jolliffe from Agriculture Victoria was the next webinar presenter and informed members on silage as a tool for fodder conservation in drier regions. Michelle spoke on the importance of timeliness, fertility, species choice and reminded members that "just putting plastic around it doesn't make it better". This topic has become especially relevant for many given how this spring has developed.

The third webinar was on Oestrogenic sub clover and had presentations from Dr Kevin Foster, Mia Kontoolas and Daniel Kidd all from the University of Western Australia. This webinar continued on from Kevin's presentation at the 2019 PPS Annual Conference and included the effect on the reproductive function of the ewe and some management techniques if you have problem paddocks.

## PPS President's Report 2020; Duncan Thomas (cont.)

The final webinar for the year was a market update from Rob Herrmann with Mercado. Rob gave a positive outlook for most agricultural markets and commented that "every country in the world is trying to stimulate their economy" giving confidence that strong recoveries in our markets are possible. Rob also gave a short presentation on a humanitarian project he has been working on with the Kasenda Village in Uganda. PPS donated to the project as thank you for Rob's presentation and Rob has also agreed to give another market update webinar early next year.

PPS has made several changes to our online presence throughout 2020, primarily by updating our website, making it more accessible through search engines and enabling members to access historic project reports and current events. The PPS Facebook page is up to 166 members and has been more successful than we had imagined at keeping everyone connected through 2020. The committee have also moved all management and administration files into the cloud, enabling us to work remotely and collaboratively to get the most out of virtual committee meetings.

The **Girls & Grass advisory group** managed to run a few events prior to lockdown. In late October 2019 they held an informal lunch at Pomonal Estate. In early March they held a morning coffee catch up at the Willaura Bakery and another via zoom in April. Unfortunately, the Xmas in July dinner, lunch at Wimmera Hills Winery and business management workshops had to be cancelled or postponed.

Girls & Grass also partnered with Grampians Pyrenees Primary Care Partnership (PCP) and others to create the FARM-her project with Debbie Shea joining the steering committee. The project aimed to "*increase awareness of gender roles and stereotypes through open discussion, the sharing of stories and providing peer support and leadership training*". Nineteen of the forty-seven women featured on the posters are of PPS members and a selection of their stories are available on the PCP website.

While 2020 may have thrown up social challenges, it hasn't stopped PPS running our **pasture projects** and we couldn't have asked for a better season locally. A strong break, dry and frosty winter, wet spring (to date), and declaration of La Niña adds up to a pretty good growing season for livestock producers.

PPS has now completed three MLA supported **Healthy Productive Soils discussion sessions** and has another three to go. Lisa Miller presented the most recent one in February on lime application and the next three sessions are ready for when COVID-19 restrictions are eased further.

The **Soil Test Digitalisation Project** is now into the demonstration phase after completing a pilot on three member farms. This project with Dr Nathan Robinson and the CeRDI team at Federation University is building a platform where soil tests can be stored and compared from year to year or paddock to paddock. The plan is to demonstrate this platform at the next Healthy Soils discussion group and from there input new member information to grow the database.

The **High Production Annual Forages in Perennial Systems MLA Producer Demonstration Site (PDS)** has been completed and the report is available on the PPS website. This project was presented on at the Grasslands Society of Southern Australia (GSSA) Annual Conference and will be repeated at the PPS AGM.

The **Annual Weed Control in Perennial Pastures MLA Enhanced PDS** in partnership with Agriculture Victoria is ongoing and 2019 results are available on the PPS website. This project has focused on barley grass control using a range of management techniques. Tess McDougall from Agriculture Victoria also presented on this project to the GSSA Annual Conference and it will be repeated at the PPS AGM.

PPS has received funding for another MLA PDS titled **Fescue; a low rainfall pasture tool?** This project is showing interesting initial results and will continue for three years. It is looking at the use of Mediterranean tall fescue (winter active) in some of our drier environments.

The **Greenfields Project** which has been running now for six years reached its payback threshold in 2020. This has been an extremely informative project following the land purchase and subsequent pasture improvement program of a block at Glenlofty. This final report is also on the PPS website.

The three Catchment Management Authorities surrounding PPS, Wimmera, Glenelg Hopkins, and North Central, have continued to support the PPS **Soil Probe Network** and subsequent reporting. The network is growing, and the addition of Dale Boyd's (Agriculture Victoria) input has turned the data into digestible and informative reports for PPS members.

## PPS President's Report 2020; Duncan Thomas (cont.)

Finally, PPS has received funding from the Federal Government's Smart Farms Small Grants 3 program for the **Informed decisions** project. In this project PPS are working with Jane Court from Agriculture Victoria who is using the PPS Soil Probe Network, BoM outlooks and farmer feedback to calibrate CSIRO's GrassGro model for our region. This is in the development stage but plans to provide ongoing estimates of perennial pasture growth rates as seasons develop.

In what has been an interesting and challenging year, I am extremely proud of the way PPS has adapted and how the management committee and Project Manager Rob Shea have ensured that PPS has remained a key part of the community. I would like to thank all of them for taking care when making the difficult decisions and ensuring positive outcomes for our members as we tackled 2020. I would also like to thank Debbie Shea who continues to provide a lot of support to PPS in addition to her facilitation of the Girls & Grass group.

This year has been made that bit easier for Rob and the committee with the assistance of Tess McDougall from Agriculture Victoria. Amongst other things, Tess has facilitated and brought a professionalism to our webinars. I would like to personally thank Tess and hope she will continue to be an enormous help to PPS.

I and the management committee are all looking forward to the return of events and in person committee meetings (more specifically the catering from Cheryl Hall and the Joel Hall Committee).

A special mention is needed for all our funders and sponsors, most notably the Wimmera CMA who support our Project Manager position through funding from the Australian Government's NLP2 program. They have all been accommodating and supportive throughout this year, enabling PPS to maintain a strong financial position and be prepared to return to our full suite of events when restrictions are eased.

I would like to finish by thanking all our members for coming on the online journey of 2020 with us. It has been very different but still enjoyable and rewarding. I look forward to being able to spend time with you all again soon and I ask that you all take care of yourselves and others in our community who may be feeling isolated.

### Duncan Thomas

PPS President



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