



PERENNIAL PASTURE SYSTEMS

MAKING PASTURE GO THE DISTANCE

PPS NEWS

Conference; The 11th Annual Conference was held in September at Ararat with over 110 people attending during the day and evening. A great line up of speakers during the conference session and farm tour at Great Western were followed by a great social dinner and inspirational presentation by Les Gason from A.F.Gason. The Project Manager has a few printed copies of the conference proceedings left if anyone would like a copy.

PPS Annual Meeting; The PPS Annual Meeting was held prior to the conference dinner and there were a few changes at executive level. Tony Roberts stood down after his two year term as PPS President expired and was replaced by Duncan Thomas. Matt Kindred has moved from secretary to vice president and Wayne Burton will take over secretarial duties. Hayden Price will take on the treasurer position after 12 years of great service by Mick Greene.

Tony Roberts and Paul Harrington have stood down from the management committee as part of PPS succession planning and PPS thanks them for their service since the formation of the group; both served terms as president. Craig Altmann and Mat Hall were appointed to the management committee; see profiles of Craig and Mat on page two.

PPS Study Tour; 28 members attended this years study tour in October. A report is on page 4 of the newsletter.

PPS end of year; 65 members attended the end of year at "Challicum View" Ballyrogan, a report will appear in the March newsletter. The event was supported by Rabobank.



Landcare Group Support Grant; PPS received a Landcare support grant through the North Central CMA in October to assist with group administration.



Soil Test Digitalisation Project; PPS was successful in a funding application to the recent round of Victorian Landcare Grants through the Wimmera CMA. The project will be conducted in conjunction with Federation University; details on page 3.

A W Howard Medal; PPS member, Charlie de Fegely was awarded the A W Howard Trust Medal in August. More details on page two of the newsletter. Charlie's award oration was presented in Wagga and is reprinted on pages 5 - 7.

PPS Girls & Grass group; Girls & Grass held an informal lunch at Pomonal Estate winery on Sunday October, 27th unfortunately the date clashed with a few other events which meant there were a lot of apologies. Twelve members enjoyed a great lunch and were given an insight into the business by Adam & Pip. The Group will be meeting soon to plan for 2020 activities; PPS Girls & Grass are supported by Rural Bank.



PPS Healthy Productive Soils Discussion Group: The second session of the Healthy Soils program was held at Elmhurst in August. Dr Belinda Hackney from NSW DPI presented a session looking at soil constraints on legume production. 28 participants took part and focused on efficient clover nodulation. Samples were brought along and assessed for nodulation. The first two sessions for 2020 will focus on soil acidity and soil biology. See diary dates on page 4 for more information. The Healthy Soils project is funded by MLA.

PPS Annuals Project: Results from 2019 are currently being analysed by consultant, Lisa Miller. A report will be sent to members when complete. The Annuals Project is part of the MLA PDS program.

PPS Annual Grass Control Project; a summary of year one is on page 3 of the newsletter and the 2019 results report will be sent to members early in 2020. The Annual Weeds Project is part of the MLA PDS program and is being conducted in partnership with Agriculture Victoria.



Fescue Project; PPS has been successful in receiving funding through the MLA PDS program for a demonstration looking at the role that winter active fescue can have in pasture systems in lower rainfall regions north of the divide. Details of the project will be in the March newsletter.



Silage workshop; PPS is planning a workshop on the use of silage in the region; more details in March newsletter.



Left; PPS Annual Conference in September.



Right; Healthy soils workshop with Dr Belinda Hackney. Plenty of clover to inspect for effective nodulation.

A W Howard Medal

The AW Howard Medal is awarded biennially by the A W Howard Memorial Trust to a person who has made a significant contribution to the advancement of pastures in Australia. It was first awarded in 2011 and the recipient is invited to present an oration at the biennial Australian Agronomy Conference.

The 2019 awardee was PPS member, Charlie de Fegely from Dobie. PPS were invited by a trust member to put forward a nomination and complied an entry which documented Charlie's contribution to pasture based agriculture in this region and more widely in Australia and New Zealand. Charlie's wider contribution to the rural community also formed part of the nomination highlighting his service in bushfire recovery, CFA, rural health and other areas. The nomination was supported by commendations from several people in agriculture as well as some in local government and universities. Two commendations from New Zealand also made up part of the nomination.

Charlie is the first farmer to be awarded the medal; a fitting tribute to his innovation and contribution to the farming community. PPS has benefited greatly from his continued contribution to the group and looks forward to many more years of his advice, ideas and wisdom.

Someone else familiar to PPS is also an A W Howard Medal recipient as Bob Reid from Tasmania received the award in 2015. Bob met with PPS members on the 2011 Annual Study Tour to Tasmania and was the Annual Dinner guest speaker in 2012. Charlie's medal oration is reprinted on pages 5—7 of the newsletter.



Left; The A W Howard Medal

Right; 2019 A W Howard Medal awardee; Charlie de Fegely.



New Management Committee Members

Craig Altmann and Mat Hall were appointed to the PPS Management Committee at the Annual Meeting in September to replace outgoing members Paul Harrington and Tony Roberts. Paul and Tony were original members on the management committee when PPS formed in 2007 and both served terms as president. PPS thanks them for their service and commitment and welcomes Craig and Mat to the management committee.

Craig grew up on the family farm at Jeparit before studying agriculture at Longernong College. Craig then commenced working in the pasture seed industry and became a partner at South East Seeds in Naracoorte before the business was sold later becoming part of the NRI network. Craig then spent two years as assistant manager of a progressive farm near Naracoorte before taking a position with AGF Seeds based in Horsham. Craig is married to Dianne and they have two sons, Patrick (9) and Owen (7).

Mathew is from "Mount Glen" at Joel South; at the end of school he completed a fitter & turner apprenticeship in Stawell combining it with farm work on weekends and after hours. This led him to employment in the mining industry; eventually starting his own engineering business in Cobar NSW.

Mat returned to the family property in 2014, aged 26 and commenced his farming career. A land purchase in 2016, which is operated separately from the home farm, added to the mixed farming enterprise. Mat married his partner, Malinda Watson earlier this year; Malinda is a grains researcher in addition to her involvement on the farm.



New Management Committee members

Left; Craig Altmann

Right; Mathew Hall

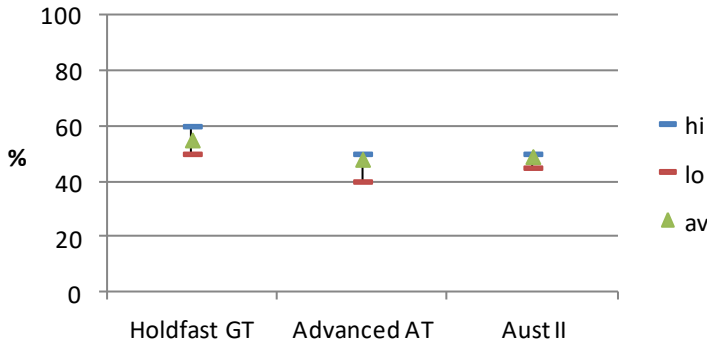


Dobie Plant Variety Trial

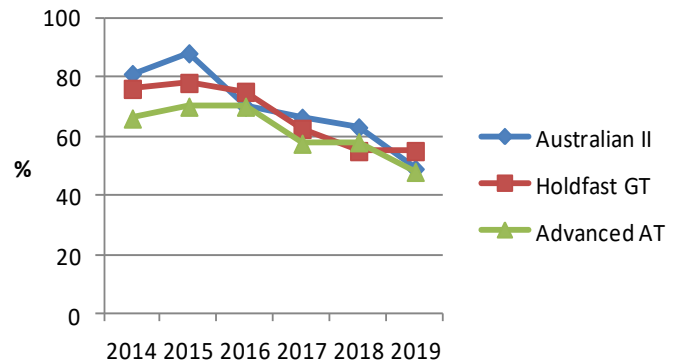
Plant persistence assessments were taken on the phalaris cultivars at the Dobie site in October; the results are shown below. The pasture is quite stable at around 50% phalaris with Holdfast GT showing slightly higher persistence than Australian II and Advance AT.

The trial site also has quite a lot of Australian phalaris that survived the weed control measures when the trial was established in 2012. The old phalaris is now compromising the individual cultivar survival estimates therefore this years assessment will be the final one for this trial.

Dobie Phalaris Replicates Survival 2019



Dobie Survival Estimate



Soil Test Digitalisation Project

PPS is commencing a new project which will digitalise soil test data and allow it to be presented in a format which will show current nutrient status as well as changes over time where historic data is entered. The project will be adapted from a format developed by Cam Nicholson and the Woody Yallock Catchment Group in conjunction with Federation University's CeRDI unit. PPS believes that the project will be a great way for members to store soil test data and assist in fertiliser decisions. When members put their soil tests into the project it will remove the need to retrieve old soil tests when searching for soil data.

There will be an option for members to share their data to allow other members to compare nutrient levels which PPS considers will be a valuable tool in making fertiliser decisions. Several members have already committed to share their data.

A pilot of the project combining data from a few selected farms will commence in early 2020, with Dr Nathan Robinson from Federation University, so members will be able to view the results before deciding at what level they may wish to participate. Nathan still has a interest in the family farm near Moyston and has great knowledge of the region; he is very enthusiastic about being involved with PPS in the project.

The project has received funding in the recent round of Landcare Victoria Grants through the Wimmera CMA. Federation University are also contributing through "in kind" funding.



Annual grass control strategies in a perennial pasture system

Assessments for the first year of the PPS Weeds Project have been completed on demonstration paddocks which focused on suppressing barley grass. Demonstration sites included methods of increasing pasture competition to reduce barley grass as well as grazing methods and silage to reduce the number of seeds available to germinate. No magic bullets have been found so far but there are some methods which may show some promise; these will be modified for the 2020 demonstration. The 2019 results will be sent to members when analysis is completed.

Barley grass seed head counts give some perspective into the issue, weedy paddocks have been assessed and seed head counts have reached 21million per Ha.

PPS has been assisted by Tess McDougall, Jo Cameron and Rachael Campbell from Agriculture Victoria during the first year of the project; it is part of the MLA PDS program and is being conducted in partnership with Agriculture Victoria.



PPS 11th Annual Conference prizes

Two draws were held on the conference day.

Western Quarries provided a truck and dog load of road making crushed rock which was used as a draw for PPS members who had completed the annual pasture survey. The survey results will be in the March 2020 newsletter.

The winner was James Kirkpatrick from Stockyard Hill.

Ararat Farm Supplies again provided a voucher for a draw for those participating in the conference feedback session.

The winner was Jill Marshall from Moyston. PPS thanks Western Quarries and Ararat Farm Supplies for their support.



~ PPS DIARY DATES ~

PPS Healthy Soils; Project Soil pH workshop - with Lisa Miller, 19th February, venue TBA

PPS Healthy Soils; Soil biology workshop - early April; date & venue TBA

PPS Silage workshop; June date & venue TBA

PPS Annual Conference, Winter Farm Tour & Study Tour dates will be set in February & will be in March newsletter.

Non PPS Event

Lambex 2020 - Melbourne Showgrounds July 1st - 3rd.

PPS 11th Annual Study Tour

This year, the 11th Annual PPS Study Tour saw 28 members visit South Australia from October 4 - 6th on. The tour started in Victoria with a visit to the large family enterprise "Boorookpi" near Minimay. With over 13,000 Ha, 85,000 sheep shorn, 170 km of boundary fencing, 55 centre pivots and fresh scones, the visit to "Boorookpi" was a great start to the tour.

After lunch at the Apsley pub the tour group headed to the cross border property "Locmaria" where much of the property has been set up with Techno Grazing for their lamb production system. A high pressure water system is reticulated through 100 water points that can each provide water for 4,000 sheep. Trade cattle and wine grapes are part of the farming system on "Locmaria".

A drive to Robe for the overnight stay, dinner at the Caledonian Inn and an insightful talk on local farming conditions by respected S.A. Consultant and PPS member, Tim Prance, completed the day.

Saturday started with an enjoyable cafe breakfast before the group made its way to "Barooka" where PPS members were reacquainted with Henry Goode, who was a presenter at the 2018 PPS Annual Conference. An inspection of the impressive sheep handling complex was undertaken before the group had a look at the rest of the farm system which has an 8,000 ewe operation focusing on sheepmeat but wool is also a priority. "Barooka" also has a 350 breeding cow herd.



Plenty of great clover pastures on the tour; this one was at "Boorookpi"



The PPS tour group at "Barooka" with Ned admiring the PPS banner



Coola Woolshed

It was a short drive to the next farm "Konetta" part of the A.J. & P.A McBride group of properties. "Konetta" has a 20,000 ewes flock and a 300 cow breeding herd; trade cattle also make up part of the livestock mix. At "Konetta" the PPS group got a good insight into the management of alkaline soils and the large drainage systems that allow farming to be conducted in the region. The day's final farm was "Kirklands" a mixed enterprise of 9,000 ewes for lamb production and 800 Ha of wheat, canola and beans. Trade cattle are also on the property but they are soon to go as conditions get a bit wet for them. The property has several mineral deficiency issues which are overcome with both paddock and animal additives. "Kirklands" has large areas of "heritage" scrub which provides great shelter and attractive views throughout the property.

A visit to the Woakwine cutting was made on the way to Mt Gambier where a massive private drainage project was undertaken in the 1950's. A pleasant social evening followed the day's activities at the South Eastern Hotel in Mt Gambier.

A cold and wet Sunday morning greeted the group as they made their way to the historic "Coola" station. The 120 year old woolshed was inspected before a farm tour which started at the bull beef operation which is conducted within a Techno Grazing system. A 1,100 Angus breeding herd and a large trade cattle system is also part of the beef system on "Coola" with long term planning ensuring that cattle numbers match pasture availability. The 15,000 composite ewe flock graze on a mix of cocksfoot/phalaris/chicory and clover pastures which help make up the 80,000 DSE carried on the property. 80 Ha of vineyards are also part of the enterprise mix. Lunch was taken in the woolshed before heading for the final farm visit.

The group travelled back to Victoria to "Withnell Dairy" near Casterton; it was one of only two farms without irrigation ("Kirklands" was the other) on the study tour. 660 Friesian cows are milked in the dairy operation and a cattle fattening enterprise is conducted on a nearby property. The pasture base for the dairy cows consist of phalaris, cocksfoot and ryegrass with large amounts of silage produced annually. A targeted program of N and GA use helps meet pasture needs throughout the winter. Cows are also fed a wheat/canola mix in the bail which has a mineral mix added to it. PPS members were interested in the use of Currie Cocksfoot in the pasture system which caused a few to reconsider how it may add value on farm.

The group's car pools dispersed after the dairy visit and there was plenty of discussion on the way home after an enlightening and inspirational study tour. *The full study tour report is available on the PPS website.*

The 11 Annual PPS Study Tour was been supported by the Glenelg Hopkins CMA, through funding from the Australian Government's National Landcare Program and Allflex.

PPS member Charlie de Fegely has provided the oration he presented to the Australian Agronomy Conference after received the 2019 A W Howard medal.



The enduring role of AW Howard's sub clover in a productive livestock system.

By Charles de Fegely

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Introduction

I am honoured to have been considered for the AW Howard medal, let alone be the recipient for 2019. Awarding me this honour appears to be a break with tradition of previous winners, as I am the “end user” of much of the work undertaken by AW Howard and for that we are extremely grateful, as our system is dependent on the performance of sub clover. By winning the award, it allows me the opportunity to share my experiences in developing a persistent and productive perennial pasture system based on perennial grasses and sub clovers.

Background

In 1923 our family moved to Quamby, which is 12 kilometres east of Ararat in western Victoria and was 520 hectares. The property has an average annual rainfall of 575 mms and our soils are clay to clay loam basalt type which have a pH (CaCl) range of 4.4 to 5.5 and the soil phosphorus range is 15 – 50 mg/kg (Olsen P). Close to fifty percent of the property is basalt rock barrier and is not suitable for cropping. The sheep flock was made up of super fine self-replacing merinos. When my great grandfather started running the property, he had a total of 1000 sheep, a lot of rabbits and four people working for him.

When my father took over the management of the property in 1949, he introduced superphosphate and sub clover along with Australian Phalaris. The sub clover varieties sown were either Mount Barker or Woogenellup and the combination of “super and sub clover” increased stock numbers from 1000 to 3000 sheep being run on the property. In 1966 when wool prices were low my father started to sow crops of oats for cash and supplementary feed.

In 1973 when I came home to work with my father, we continued cropping but with little rewards given waterlogging and frosts in late spring. In 1985 my father chose to go into state politics and left me to run the family property. At that time, we reviewed our operation and decided to reduce the cropping and increase our livestock operation. We then decided we needed to undertake a major pasture renovation program as the cropping program left us with some very unproductive pastures.

Currently we have 1600 hectares under management with some land leased as well as our own. We are running 7000 composite breeding ewes and 200 calves which we are backgrounding for the feedlots. This year we have sown 120 hectares of red wheat and 250 hectares of annual rye and clovers. The cropping program is for the supply of supplementary feed and or pastures for weaning. We aim to sell all our lambs prior to Christmas for slaughter at 20-22 kg carcass weight or to finishers as store lambs. Our aim is having all sale stock sold before the end of December with only next year's breeding ewes remaining into the New year.

Pasture Improvement and Management

Prior to undertaking the major pasture renovation program in 1985, I had sown ten hectares of Trikkala sub clover and Phalaris and the results were inspiring. As well, I was a member of the Grassland Society and attended many field days which demonstrated the benefits of improving pastures. The Department of Agriculture ran a trial in the early 80's on a neighbouring property that compared a renovated pasture with an unimproved pasture and the increase in production and profit was close to double. At the same time, I went to a Grassland Society Conference in Hamilton which had a tour to the Pastoral and Veterinary Institute to inspect the “Long Term Phosphate Trial “. At the conference we were told by Peter Schroder from the Department of Agriculture that when sowing a new pasture, we should sow 10 kilograms of Trikala sub clover.

Whilst carrying out the pasture improvement program I participated in the “Prograze Course” which was an MLA initiative. This course taught us about pasture establishment and management along with livestock management. It was invaluable and sadly the pasture establishment and management courses and trials are not readily available today. The learning for me was to closely match livestock demand with pasture availability. This remains a key factor in our management today, as we aim to maximise our pasture production whilst we optimise the number of livestock we run during the growing season and run our core flock in the dry times.

Thirty years after the renovation program, the clover remains as strong as it was when first sown. However not all the grasses have remained, so we are either replacing them with Holdfast GT or sowing an annual rye grass which lasts for 2-3 years and is resown. The annual grasses can be grazed in autumn with little or no animal impacts and allows us to keep our perennial grasses ungrazed and not damaged from grazing.

Pasture Improvement and Management (cont.)

We now apply fertilisers as required following soil test results and this includes applying lime. We have not used any insecticides on our pastures once the pastures are established. We occasionally need to control flat weeds (in particular capeweed) with the spray grazing technique. The other weed we need to control is barley grass which appears if the perennial grass population diminishes. A crop of red wheat or spray topping is the best method of control and then resowing a new grass the following year.

We are constantly evaluating new species as they become available. We do this in conjunction with The Perennial Pasture Systems (PPS) group in Ararat or seed companies. However, we are having trouble establishing new clovers as Trikkala sub clover is prolific at setting large quantities of seed. We have recorded up to 1 tonne per hectare of Trikkala seed in the top 2 cm's of soil.

The success of maintaining a good sub clover stand once it is established is a combination of appropriate fertiliser, grazing and managing seed set. We avoid over grazing during the summer autumn period and aim to retain at least 1000 kilograms of dry matter per hectare during that period.

Livestock Improvement

Initially our flock was based on superfine merinos. In 1975 we introduced more productive merinos from Hazeldean based in the Monaro, which increased the cut per head and did not change the fibre diameter. This increased our production per head and helped to improve the profitability of the operation. As our pastures developed, we decided to move to a dual-purpose merino and focus on wool and meat. Several years later we introduced the high fertility merinos from Bundilla Merino Stud at Young. This new addition dramatically lifted the fertility of the flock through the "Booroola" gene. The scanning rates lifted from 130% to 170%, however our marking rates did not lift as much.

In 2012 when my son Richard returned home after completing Marcus Oldham College, we decided to change the flock more towards prime lamb production. I had introduced some maternal composites (East Friesian x Poll Dorset) to our merino flock and the results were very encouraging. We had been using Australian Sheep Breeding Values (ASBV's) when selecting sires for some time, which gave us great genetic gain and progress in production which provided a great base for a prime lamb flock.

Through careful selection on growth, fat and muscle we have increased lamb survival from 55% to 87%. We have increased our lamb growth rates so that we have lambs at a slaughter weight of 22 kg carcass weight in 120-150 days. No longer do we need to carry as many young sheep during the summer autumn period and that has reduced the amount of supplementary feeding.

Management

Our challenge going forward is to manage seasonal variability. As our system is pasture based and it requires us to constantly carry out pasture feed budgets and then adjust stock numbers accordingly. Our flock change from a wool to prime lamb which means we reduce the number of stock that we carry during the summer autumn period. It also allows us the opportunity to significantly rebound numbers if we need to destock due to low rainfall.

Having experienced dry times, we have developed triggers based on when we get the autumn break and if spring finishes early. We constantly have stock classed according to performance that can be sold if required. We have found to sell early is better economically and environmentally and we do not "wait and hope". Selling stock in good condition generally does not draw anywhere near the discount, but still has to be weighed up with the cost to carry.

We sell about 40% of our lambs for slaughter with the balance (largely twin born) being sold to lamb finishers. We have capacity to finish lambs in our feedlot but in recent times it has not been economical for us to do so. Our focus from weaning is to look after next year's breeding ewe and the ewe replacements'.

One of the major programs that we have been working on in the past few years has been lamb survival. We have increased the survival of foetus to marking from 55 to 85 percent. This we have achieved by pregnancy scanning our ewes and lambing the twin bearers in small mobs (60-110) in small paddocks (8-12 hectares) that have high quality pasture. That is at least 1000 kg Dry Matter per hectare of 40% sub clover, 40% perennial grass and the rest being annual grass and no dead pasture.



Consultancy and Open Farm

In 1991 I was the president of the Grassland Society of Victoria and I was approached by Dr Peter Sale from LA Trobe University to get the society to apply to the Australian Woolmark Company (AWC) now Australian Wool Innovation (AWI) to seek funding to set up producer paired paddock programs. The program became known as the Grassland's Productivity Program (GPP). It ran from 1993 to 1996 and had 120 producers set up paired paddocks to compare their current management with productive pasture systems.

The program allowed producers to evaluate a new pasture system with their current management whilst being guided by an agronomist. The program provided the participants with the skills and confidence to increase the production of their properties with confidence. This program was very successful and went on to be run by Rural Industries Skill Training (RIST) at Hamilton and was extended to a larger number of producers.

Following my time with the GPP program I became a member of the International Wool Secretariat (formerly AWC now AWI) Zone Advisory Committee where I spent three years helping to set up research and extension programs for woolgrowers. The joint IWS and MLA, Producer Initiated Research Development (PIRD), was one of the programs that I was involved with. Interestingly it is still running today and is funded by MLA. That program allowed groups of producers to carry out their own research whilst being supported by a consultant.

From 2000 to 2010 I worked part time with Mike Stephens and Associates, (now operates as Meridian Agriculture), where I worked with producer groups who looked for pasture and livestock management advice. I found that as I had my own property, I was largely providing advice on what I did on my farm and what was successful and what was not so successful.

We have carried out many different pasture trials to evaluate their performance and as a result have hosted many field days and tours to our property to inspect the results and discuss pasture and livestock management. Since 1989 we have had over 5000 people visit our property to inspect the work we have been done.

Conclusion

I was extremely fortunate to have started my farming career when there was a large amount of supportive research and development in pastures this provided me with a resource that gave me the confidence to renovate new pastures and lift our livestock productivity. Sadly, the young farmers today do not have this wonderful resource.

My wish has always been to see pasture research that involves animals and not motor mowers. A case in mind was the "long-term phosphate trial" at Hamilton. Currently all we have is data from pasture trials cut with mowers and this gives us only gives part of the picture.

I firmly believe we have a productive and profitable livestock system that includes sub clover thanks to the previous research carried out by Department of Agriculture Victoria and the development of sub clover by AW Howard.

The majority of our pastures are at least 30 years old and their performance and returns are equal to the best cropping farms in our district year on year. They are sustainable and can be a great example to the wider community as a way to manage climate change in the future. To this end we thank Amos W Howard.

