PPS FESCUE PROJECT; L.PDS.2004 - *(2020 – 2023)*

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.*

Case study; Gollops; Avoca

Comment;
"It seems the best way to get adoption of winter active fescue in <550 mm zone is for producers to try a paddock of it themselves. Those who have are going back for more."

In 2019, Stephen Pasture Seeds (now DLF) Pasture Rep, Michael Grant suggested a dryland mix might be a good fit for a new pasture at Lloyd & Lorraine Gollops, north-east of Avoca. Lloyd went along with the idea and it hasn't stopped raining since.

The paddock selected is in the Ordovician foothills of the Pyrenees Ranges around 10kms north-east of Avoca. The pasture had declined and was dominated by soft brome (Bromus hordeaceus) and silver (vulpia spp) grasses.
Pre sowing weed control was carried out with a Spraytop in Spring 2019 and a weed knockdown spray in Autumn 2020.
The new pasture was direct drilled with an Agro Drill on the 28th of April, 2020.

Project Background

Approximately 40% of PPS member farms are located north of the Great Dividing Range in Central Western Victoria. The area, south of the Wimmera and Central plains, consists of light soils and the region typically has a short growing season due to low spring rainfall and high evaporation; this is becoming increasingly frequent with "bob tail" springs reducing production capacity. PPS considers that winter active fescue sown on part of the farm could increase overall dry matter production and allow spelling of Phalaris and other species to aid the build up of plant reserves before grazing later in the spring. The addition of further perennial species on farm will assist in keeping adequate ground cover over summer.

Winter active fescues have been demonstrated to fulfill a role in perennial systems in Southern Victoria but their early heading trait and potential earlier loss of feed quality has meant that management issues have arisen.

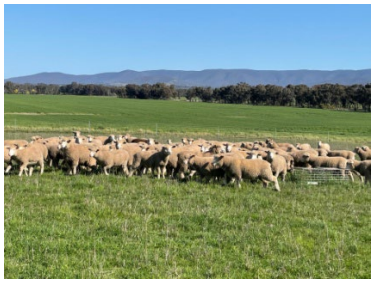
From the trials previously conducted, PPS members concluded that winter active fescue could be a productive and persistent perennial grass option for use in below 550 mm rainfall zone, where Phalaris has historically been used with success.

PPS members considered that the traits that winter active fescue exhibits may allow it to produce earlier growth in the north of the Great Divide where winter soil temperatures are higher and there is more sunlight in the colder months.

Along with the production increase achieved by replacing low performing annuals with high production perennials, there is the well documented improvement in land management through reduced run off, increased ground cover, improved water use efficiency and reduced risk of nitrate leaching.

Left; Pasture at Gollops, Avoca

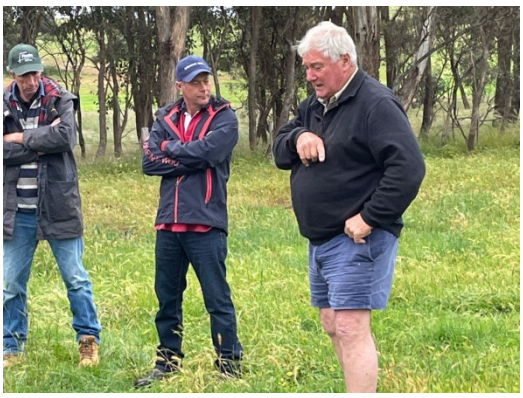
Right; Lambs checking pasture cages at project site.



Gollops FDS site
Gollops was sown with Fletcha Fescue @ 10kg/Ha, Uplands Cocksfoot @3kg/Ha and Riverina and Urana Sub clovers @ 4 kg/Ha each after an early autumn break. The grasses established at an impressive average of 102 plants per Sq metre.
The pasture grew rapidly in the warm, moist autumn soils and Lloyd Gollop didn't hold back, starting grazing after about eight weeks. The grass and clover handled the grazing due to the great season and the strategic management of rotational grazing.

Years 2 & 3
Gollop's dryland mix pasture again avoided an autumn test in 2021 when Lloyd and Lorraine dialled up a late February autumn break. They had a repeat in 2022 when a third La Nina visited Central Victoria.
With no moisture stress and no nutrient issues (pH 5.30 CaCl, Olsen P of 12 and adequate P and K) the pasture was able to produce large amounts of feed in both years. An application of N each winter helped too.

Dry matter measurements in 2021 and 2022 showed that the pasture produced in excess of ten tonnes DM/Ha in each year. The stocking rate calculations showed more than 20 dse/Ha could be maintained through the rotational grazing management on the site.



Above; Lloyd Gollop (right) pointing out a few fescue facts to PPS Management Committee member, Mal Nicholson (left) and PPS President, Matt Kindred (centre).

Subdivision of Paddock
The site was subdivided in 2021 in line with findings from the PPS Phalaris Persistence Project, an MLA PRS project completed in 2017. A positive correlation was found in Phalaris frequency with decreasing paddock size. The results showed that Phalaris pastures over 20 Ha in size have a lower persistence rating than those under 20 Ha. It is possible that this effect could be the same for other perennial grass based pastures. Lloyd and Lorraine fenced the Avoca site into two paddocks which has aided grazing management and will possibly enhance the persistence of the Fletcha fescue and the Uplands cocksfoot. The Phalaris persistence report can be found the PPS website.
www.perennialpasturesystems.com.au

Feed Quality
One of the barriers to the adoption of winter active fescue is its tendency to produce large amounts of spring feed and then go into its reproductive stage quickly reducing feed quality. PPS has feed quality tested fescue, cocksfoot and phalaris as part of this project along with a separate feed quality project that was conducted in 2021.

The results have shown that fescue drops below high digestibility criteria before other perennials tested; its protein and energy levels differ little from phalaris pastures. An interesting finding is that the Uplands cocksfoot at Gollops has maintained its feed quality for longer than both phalaris and fescue. The full details of these results can be found on the PPS website under the feed quality and fescue projects.

Dry Seasons
While the consecutive La Nina's have not tested the persistence of the fescue/uplands pasture; ongoing PPS Pasture Variety trials at Tottington and Eversley in similar type climatic conditions suggest that if correctly managed, both winter active fescue and Uplands cockfoot can be as persistent as Phalaris. Planned rotational grazing, control of excess fescue growth in the spring and adequate soil nutrient status should ensure a strong perennial pasture persisting for many years. Fescue grazing guidelines prepared by project consultant, Lisa Warn are included as an appendix in the full PDS 2021 report, available on the PPS website.

Above; Mogwai checking pasture growth.

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The PPS website can be found at:-
www.perennialpasturesystems.com.au