





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; Overdale; Concongella



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."

The Overdale farm at Concongella, 10 kms east of Stawell, has long been recognized for its land management and pasture improvement; many farm visits have been made by producers, Landcare groups and people interested in soil protection. Overdale has thousands of trees planted on the hill country and large soil conservation projects have been completed over the years to mitigate the risk of wind and/or water erosion. George and Kath Holden implemented large pasture improvement programs. George is proud and passionate about his Phalaris pastures. In the past few years, the management of Overdale has been handed over to daughter Sue and her husband, Mal Nicholson.

The management succession slowed down a bit a few years ago when Mal decided to trial GA (gibberellic acid) on one of George's favourite Phalaris pastures. GA is produced in plants naturally, promoting growth through leaf elongation and can be synthesized to spray onto plants in winter. The treatment causes temporary yellowing of leaves as the leaf elongation outpaces photosynthesis for a few days. Kath and George had a few days away and on return, George asked Mal for an update and a drive around, unfortunately the Phalaris still had a yellow colour and George had some strong questions about the perceived ruination of the pasture. Mal's position as joint manager (and maybe son in law) looked a bit shaky until the green returned and the Phalaris produced some great winter feed.

Sue and Mal introduced winter active fescue into the Overdale system in 2019 with much less drama!

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 also 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.

Overdale PDS Site

The fescue sown in 2019 included Uplands cocksfoot and performed well as its purpose was to handle heavy grazing in a paddock near the Overdale woolshed, when large numbers of sheep come in for shearing and other husbandry operations. While the grasses performed well, the clover component was low, something Sue and Mal are working on to address. A decision was made to continue on with the winter active fescues and in 2020 they struck gold with it.

Overdale has two paddocks across the road from the woolshed which could easily double as a gravel pit (no gold struck); the thin soil looks about as hostile to permanent perennial pasture as you could find anywhere. Add its lack of water holding ability and you would think that you had a large unproductive area that you could do little with.

Not so at Overdale, in 2019 the eastern paddock was sown to Holdfast GT Phalaris, sub and Arrowleaf clovers; a very good establishment combined with precise first season management has resulted in a pasture with great feed and permanent ground cover. It was now time for the Fletcha fescue which was sown on 13th May 2020 again with the same mix of clovers; we were now in La Nina time and the pasture established at an average of 118 fescue plants per square meter. The fescue and clovers grew well into the spring and handled stud ram lambs well into summer.

Production & Quality

Direct comparisons can be made between the fescue and the Phalaris at Overdale thanks to the pastures being adjacent. In 2021, the second of the three La Nina years, dry matter production was similar in both pastures with around 5 tonnes DM/Ha being produced in each of the hostile soil types.

Crude protein dropped early in the fescue being below dry sheep requirements by 26th November, the Phalaris didn't go below that until 18th December. Energy levels for both grasses were above the 8 MI/kg/DM needed for sheep until early January while the fescue maintained its digestibility above low levels for longer than the Phalaris. It should be noted that only the grasses were measured/tested and the dry clover residue wasn't taken into account.

Dry Seasons

While the consecutive La Nina seasons 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, if correctly managed, that both winter active fescue and Uplands cocksfoot can be as persistent as Phalaris.

Planned rotational grazing, control of excess fescue growth in spring ad adequate soil nutrient status should ensure a strong perennial pasture persisting for many years. Fescue grazing guideline prepared by Project Consultant, Lisa Warn are included as an appendix in the 2021 PDS report, available on the PPS website.



Above; Mogwai getting comfortable on the newly established Fletcha fescue pasture.

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