

**Project name: Perennial Pasture
 Persistence; Phalaris**

**MLA PRS Project B.FDP.0051
 Case Study: Greenwood, Englefield Vic;
 Aira and Geoff Kemister; March 2016**

Greener Pastures

After spending ten years working with the NSW Department of Primary Industries Geoff Kemister, and his wife Aira, decided that it was time to go farming themselves and in early 1990 they purchased a farm near Forbes in NSW.

As time went on, cropping became the predominant enterprise in the region but the Kemisters were determined to continue their passion for livestock farming and finally said yes to one of the constant offers from neighbouring croppers and sold the property. The search was now on for a replacement and they set out their criteria for the new farm. It had to be in a reliable rainfall area with a mild climate, suited for grazing not cropping, having plenty of trees and have the potential to support a productive lamb producing business. Geoff said "we were fairly hardnosed about the process and finally found what we wanted, we paid a bit of a premium to get the place but we knew that we could develop it into the farm we wanted."



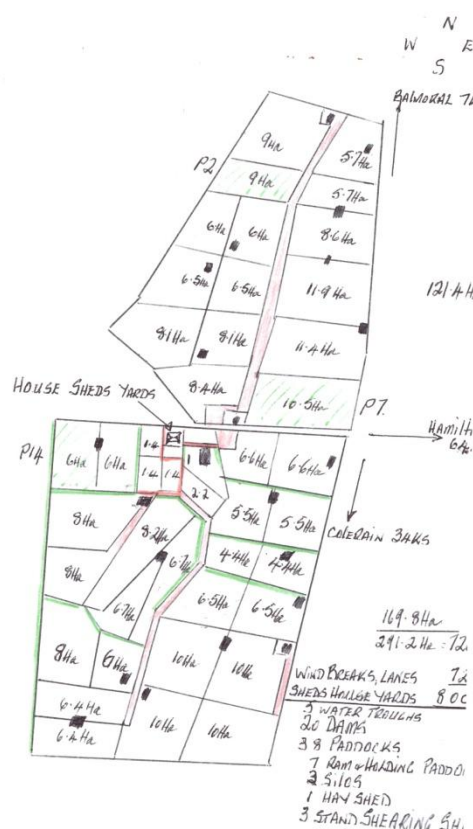
The property, Greenwood, is in the red gum country at Englefield about 7 km south of Balmoral in Western Victoria, the Kemisters took it over in 2003 and soon after sold part of the property to blue gum investors which allowed them to invest in improving the remaining 320 Ha. Aira "said the infrastructure was in pretty good shape with good farm

buildings and boundary fencing but we did have to do a little bit of work in the house".



Improvement Underway

The pastures had a base of old phalaris but were very weed infested and the average paddock size was 60 Ha, fertility was quite low with phosphorus levels in the Olsen P range of 5 to 8. They started to apply capital rates of phosphorus, sulphur and potash, "every dollar we spent had to earn us two in return" Geoff commented. The subdivision of Greenwood also commenced with central laneways planned to service all paddocks and a series of holding paddocks constructed to allow efficient sheep handling.



Up Skilling

The farm plan was finally decided on after the Kemister's completed a couple of training courses which confirmed that they were on the right track. They completed a weed control course conducted by Agriculture Victoria and participated in the pilot of the EverGraze "Whole Farm Grazing Strategies Course. These focused Geoff and Aira and the final parts of their plan was implemented, completing the 30 km of internal fencing that has been constructed since purchasing the property.

The Kemister's joined the Perennial Pasture Systems (PPS) group around this time and are regulars at PPS events; they also went to New Zealand of the 2015 PPS Annual Study Tour with 33 other members. Aira commented "we love going to the PPS events and meeting up with like minded people with a real interest in sharing their knowledge and ideas".



Grazing System

Geoff said "we really got the biggest impact when the fencing system was completed and our grazing strategies kicked in". Greenwood now has 38 paddocks ranging from 4.4 Ha to 11.9 Ha with an average size of 7.5 Ha.

Mobs of sheep are grazed in a four paddock rotation around a central dam. Large deep dams are fenced into a 1 Ha area with gates opening into the adjoining paddocks allowing access from one paddock at a time, fitting perfectly with the rotational grazing system.

The dam area can also be used as a fire refuge area for stock if the need arises.



Labour

With exception of help at shearing time, Geoff and Aira provide all of the farm labour.

Aira pointed out that "the paddock layout was done to fit with our labour input, mob size is set to be able complete any sheep operation in one day and to be able to muster the next mob into the holding paddocks ready for the next morning". Mob size usually ends up at around 200 ewes and with an average 130% lambing their labour system works well. Geoff said "we are getting on a bit but things still work well and the sheep are very quiet, aided by the paddock system and laneways.

Production Lifted

No new pastures have been established on Greenwood by the Kemister's so all the productivity gains have come through the management of the old phalaris pastures.

They have managed to increase the stocking rate after the farm subdivision was completed, even in the dry years of 2014 and 2015. The area has an annual rainfall of 600mm but has ranged from 361 mm in 2006 to the 2016 total of 903mm since the Kemister's purchased the property. In February it was carrying 16 dse/ha with plenty of dry feed left in the paddocks.



The Kemisters might be managing their phalaris a bit too well as it is restricting the clover content in some paddocks, "we are looking for ways to rectify this" Geoff said "and have slashed large areas of high, thick phalaris growth during summer". They are also looking to get wethers back into their system as a pasture management tool keeping some of the lamb drop and looking for trading opportunities when they arise.



Fertiliser

Current Olsen P levels are around the 12 mark with an annual application of 13 units of P, potash has been applied to most paddocks. The aim is to lift the Olsen P to around 15 but Geoff mentioned “we are growing heaps of feed at the moment so we need to put a few more sheep on before we lift productivity again”.

Not much lime has been applied with pH levels sitting around 4.4 – 4.6 (CaCl), they are currently reviewing their lime program and its use may increase in future.



Sheep

The Kemister's ewe flock is half composites and half SAMMs and they are looking to bring in some finer woolled SA type wethers to aid grazing management. They have had success with these type of sheep on the property previously and believe that they are a good fit in their grazing system. The sheep health benefits from the shelter belts that have been planted since the property's purchase.



The Future

Geoff has hit the big 70 and says he is slowing up a bit; you wouldn't know it looking at the farm and the excellent health of the stock. “I love what we are doing here, I just wish I was 30 years younger” Geoff said.

“We have some retirement plans” Aira said “but we just don't want to stop yet, we love it here and our passion for farming is still strong”.

Summary

The PPS phalaris project involved an in depth study of persistence of forty old phalaris pastures and looked for the common factors in phalaris persistence.



One of the major findings related to paddock size and found that pastures over 20 Ha were less likely to persist than those less than 20 Ha.

The study also found that compounding stress factors such as low fertility, overgrazing and high acidity reduced the persistence level.

Three of the Kemister's paddock were part of the study.

The management system on Greenwood addresses all the negative factors involved in phalaris persistence and stand out as a model for productive, persistent phalaris based pastures.

