



Perennial pastures extend the growing season

Kevin and Elly Moir from Wilga, south-west Western Australia are progressing their aim of boosting autumn and summer feed for their sheep with the help of perennial pastures. Kevin explained to Rob Kelly how their farm has undergone a series of evolutions in farming practice.

“We went from the old butter fat dairy days through to beef and sheep and a little bit of cropping to now where we have exclusively a sheep enterprise,” Kevin said.

“Even our sheep enterprise has evolved.

We used to run a self-replacing Merino flock with a focus on wool, but with the return from lambs I wanted our sheep to put on more body size and get the lambs to grow out more quickly.

So we decided to mate our Merino ewes with Dohne and White Suffolk rams for prime lamb production. And that’s what we’ve done the past couple of years.

Lambing used to happen during July and August but we’ve been moving that forward to June and July to reduce problems with flystrike and grass seeds.

We’re hoping to overcome some of the grass seed problems with the introduction of perennial pastures.

Bridging the gap

What I was aiming to do with the perennial pastures, especially with a late break scenario, was bridge the feed gap by having plants already in the ground and established to produce more early feed.

The previous annual pasture base was almost exclusively clover, which is slow to establish, especially in cold conditions.

key points

- **Timing of sowing can impact dry matter production significantly for perennial species**
- **A carefully selected species mix will outperform a single species perennial pasture base**
- **Red-legged mite control can be critical, particularly in pastures containing plantain.**

farm info.

Case study: Kevin and Elly Moir

Location: Wilga (20 km north of Boyup Brook), Western Australia

Property size: 600 ha

Mean annual rainfall: 700 to 800 mm

Soils: Highly variable, from sandy gravel to heavy

Enterprises: Wool and prime lambs

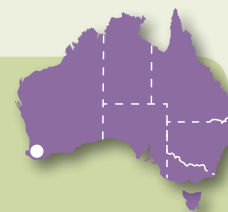


Photo: Courtesy of Landmark

Perennial pasture species are helping Kevin and Elly Moir of Wilga boost pasture production, extend the growing season and control the water table.

To boost the clover, we planted a number of annual ryegrass varieties to try and put a bit of balance into it.

But annual ryegrass is very competitive and in some places choked the clover out completely.

It was then we decided to go for perennials and of course, annual ryegrass can snuff the perennial plants out too.

We started planting of perennial pastures during 2002 and in that year we sowed during May and June and they did extremely well.

I put nearly half my farm into perennials last year. On the dryer areas I planted a mix of tall fescue, phalaris, cocksfoot, chicory, plantain and clover.

We also sowed a mix of lucerne, chicory and plantain in another three paddocks intended for high-quality silage.

Timeliness proves critical

Delays caused by the unavailability of seed and difficult weather conditions taught us that sowing date is critical for the perennial species.

The difference between sowing earlier than later was probably 1000 tonnes of silage and probably 300 rolls of hay during the first year – it was substantial.

You’ve also got to get rid of the ryegrass before seeding so we used a double knockdown herbicide spray.

We direct seeded the perennials like a crop and they were sown with a pasture renovator fitted with presswheels.

Reduced herbicide options

The grass and broadleaf mix limits your herbicide options, so the pre-sowing weed control needs to be effective.



With the lucerne, plantain and chicory mix we could spray out the ryegrass and corkscrew (*erodium*) with Verdict.

Lucerne establishment challenging

Another thing we've learnt is that establishing lucerne can be a challenge.

I read an article from the eastern states that said you can get a lot better feed value from lucerne if you mix chicory with it.

It seems to complement the diet of our sheep and we've found where the lucerne hasn't established well, the plantain and chicory has done really well. Plantain does particularly well in our region.

However, a key thing to watch with plantain is Red-Legged Earth Mite (RLEM).

Some of the plantain I put in earlier has been devastated by mite attack. They seem to prefer it to anything else.

We now use the Timerite risk calculator and Lemat to keep on top of the mites.

Suitable species for the wetter areas will be an another ongoing evolution and I'll have to consult my Landmark agronomist, Sam Taylor as to how to handle that one." 🌱

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Photo: Courtesy of Landmark



Plantain, chicory, cocksfoot, phalaris and fescue make for a profitable perennial mix.

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science behind the story

By Sam Taylor, Landmark

- **Wilga, located in south-west WA between Donnybrook and Boyup Brook, is an area that is susceptible to many frosts each season. With cooling conditions at the end of autumn when the traditional season break arrives, annual pastures are often slow to establish and a feed shortage generally occurs prior to the onset of lambing. Using perennial pastures has allowed Kevin and Elly to increase the available feed supply at this critical time of the year.**

Having the plants already established at the break of the season, means the perennial pasture is ready for grazing earlier than comparative annual pastures, with an increased amount of high-quality dry matter.

Perennials make better use of the favourable growing conditions at the end of autumn that helps build a feed wedge (surplus) going into winter, which is critical for lambing and helps manage the risk of a false autumn break.

The use of several species in the mix has allowed pasture production to be increased across the variable soil types of the property. As an example, lucerne will not do well in the lower parts of the landscape where waterlogging can be intermittent. However, it does extremely well on the gravel hills where

it can put its roots down to depth and utilise excess soil moisture.

Five-year old lucerne stands that Kevin had established previously have persisted extremely well. The broadleaf herbs (chicory and plantain), maintain growth rates during winter as they can catch more sunlight and are better adapted to areas not suited to lucerne.

The perennial grasses are newer to the system, however we are confident of increasing production with them as Kevin employs a system of rotational grazing, critical to the survival of perennial species. They are suited to the environment and hardy enough to survive, so after the critical establishment phase they should add value to the system.

Late spring feed production is generally good in the south-west, however the use of perennial species allows high-quality fodder to be conserved as the vegetative phase of the perennials lasts longer than annual species and the fodder is conserved later than annual pasture paddocks when weather conditions are generally more favourable. Utilisation of annual pastures is then increased as the perennials become the focus of fodder conservation and annual pastures are rotationally grazed at this time. Perennials also recover post cutting at

an increased rate compared with annual species, lengthening the season to a degree and reducing the reliance on supplementary feeding. I have seen large surpluses of conserved fodder available on Kevin's farm during August the following season, indicating this system allows him to have at least 12 months feed supply up his sleeve.

The process of replanning his farm fencing and increasing the number of paddocks is another major key in the success of this system for Kevin. Smaller paddocks mean that short term stocking rates can be increased in perennial paddocks, and this then allows longer periods of recovery between grazings, a critical success factor for perennial pastures.

- **Sam Taylor has 10 years experience in commercial agronomy with the last six years in south-west WA. Sam is contracted to Landmark and specialises in pasture production and in particular establishment of perennial species.**

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