



Lucerne provides flourishing feed for summer

As south-west Victoria enjoys the wettest season for about a decade, John Lyons reflects on the ability of his perennial pastures to respond to the varying conditions.

“We run a mixed farming operation across two properties – *Warooka* and my father’s property *Coonara* – and perennials have always played a role,” John said.

Traditionally, we have had a mix of perennial ryegrass and phalaris, but more recently we have introduced lucerne into the system to provide green feed over summer and allow us to better finish our lambs.

Lifesaving lucerne

I tried lucerne years ago, but didn’t have much success – probably didn’t put out enough lime and it didn’t survive terribly well.

Then during 2005 we tried it again with an 18-hectare paddock.

I sowed the paddock during spring and with no significant follow-up rain I’d almost written it off.

It was hit by grasshoppers, then kangaroos and I thought that was the end of it. But we had about 75 millimetres of rain in a single downpour during the middle of January and the lucerne took off overnight.

That dry season had prompted us to carry out a water supply stocktake to calculate how long we could continue to keep sheep on.

farm info.

Case study: John Lyons

Location: Hamilton, Victoria

Property size: 2207 ha

Mean annual rainfall: 635 mm

Soils: *Warooka* – sandy loams, *Coonara* – buckshot gravels and sandy loams

Enterprises: Wool, prime lambs, canola and cereals



Photos: John Lyons

John Lyons has sown lucerne (foreground) to provide green feed during summer when the feed quality of annual pastures (background) is limited. Perennial ryegrass, phalaris and clover provide feed on soils unsuitable for lucerne as both grazing pasture and hay.

key points

- With careful establishment and management lucerne can provide plentiful summer feed during summer, responding quickly to summer rainfall
- Phalaris management is critical to maximising the benefits and avoiding any toxicity risks in sheep
- Winter cleaning keeps pastures free from annual grasses, leaving highly feed for hay production for grazing
- Tall fescue is an option worth investigating for soils that cannot support healthy lucerne production.

We decided that the water would have run out by the end of January – but the rain fixed that.

The sheep went on the lucerne two weeks after that rain and they couldn’t keep up with the feed.

The next year (2006) we sowed another 30 ha and 40 ha this year. This last paddock will qualify for a local Catchment Management Authority grant for establishing lucerne to manage excess soil moisture.

Seeds of success

Our more recent success with the lucerne has come from ensuring the country is well prepared – limed and effective weed control before sowing.

I also think we may be more successful sowing lucerne alone not in a mix as the sheep give it a hiding compared with the other species.

Grazing management is very important with lucerne. We’ve split the 30-hectare paddock into two 15-hectare paddocks and the 40 ha will be split into four 10-hectare paddocks to allow us to finish off our lambs more effectively.

We weigh our lambs, separate them into about three groups according to weight – the top group will be ready to go, just waiting for a contract the lighter groups need a bit more feeding.

When the prime lambs have gone we will run the spring-drop Merino weaners on the lucerne.



Perennial pastures stay green for longer during spring and respond to summer rain, providing better quality feed.

Another benefit is that the lambs run on perennial pastures do not get infested with grass seeds.

Wet feet

Lucerne doesn't like wet feet. The paddocks I have put it in have been dry until this winter, but it has been wet this year for short periods through winter and spring.

I winter clean the lucerne pastures with sprayseed and diuron to keep them free from annuals, such as barley grass and silver grass. But this year a wet patch in the paddock hasn't survived that treatment well – I think it was a combination of rain, spray and grazing pressure.

Supporting species

Not all our soils are suitable for lucerne, we have a mix of phalaris and perennial ryegrass pastures on these soils.

We have phalaris pastures that are more than 30 years old but sometimes they cause problems – we've lost a few sheep over recent years to phalaris staggers.

We need to manage the grazing of phalaris to prevent the sheep from suffering phalaris toxicity – but it remains integral to our system.

Sheep with empty bellies should not be put onto paddocks with a high phalaris content. Our strategy is to ensure the paddocks close to our shearing shed and yards have a greater proportion of other plants such as perennial ryegrass and clovers. This way if sheep have been in the shed for some time they are not going directly onto phalaris. Paddocks out the back are fine to have a higher phalaris content, I just need to make sure the sheep aren't empty when they move onto them.

We've had the wettest winter and spring for about 10 years and although phalaris in some paddocks hadn't even shown its head in recent seasons, this year we're having trouble riding the motorbike through it.

Some of our phalaris has been here since the early 70s, established by direct drilling using a mix of paraquat and diquat – an approach ahead of its time.

Tall fescue is something we are investigating. A paddock has been spray topped during spring to control barley grass and silver grass. We'll direct drill the fescue during autumn and will include a perennial clover in the mix, possibly some perennial ryegrass as

well. Being summer active, the tall fescue will provide another summer feed option on country that doesn't suit lucerne.

We have tried Haifa white clover, but sheep and white clover don't work too well – the seed sets too high and the sheep eat the seed, so the clover ends up dying out.

I think we'll go with something more prostrate like strawberry clover, which sets seed closer to the ground.

Keeping it clean

I like to keep my pastures clean and free from annuals as much as possible. A boomspray is used quite often with an MCPA spray graze to keep out the capeweed. Winter cleaning with gramoxone and simazine in selected paddocks helps to control barley grass and silver grass. This way I can count on getting good clean pasture hay during spring, as well as a good grazing paddocks. 🌱

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science behind the story

By Lachlan Hurley, Landmark

- **John has some productive and persistent pastures, which are the result of sound grazing management and careful maintenance post establishment, including effective weed control and a good fertiliser history.**

Lucerne provides a source of high-quality feed to extend the growing season. However, paddock selection is critical due to wet our winters. Lucerne requires free-draining soils, undulation or some form of drainage. However, it does dry the soil profile considerably, and what was once a marginal paddock, drainage wise, can be a well-suited paddock if lucerne establishes successfully.

Lucerne does not tolerate acid soils and lime is a must – preferably 18 months out from sowing.

Although John's fertiliser history is sound due to soil type, potassium is applied annually at maintenance rates, along with trace elements – copper, zinc and molybdenum.

Weed control prior to sowing is essential and John sows his lucerne during early spring, typically after a double knock down, plus trifluralin.

A sowing rate of 10 kg/ha, with inoculated seed provides good groundcover and allows seedlings to compete with any remaining weeds. Inoculation is critical as the typically low pH soils provide a hostile environment for rhizobia. It's common to see nitrogen-deficient legume crops in the area! Molybdenum applied as a foliar or with fertiliser, also will encourage nodulation.

Insect control during the first three months after germination is important

Rotational grazing is critical for success with lucerne, not only for persistence but also getting the most dry matter from the paddock.

Phalaris and winter-active fescue provide a good fit with lucerne – deep-rooted perennials are certainly the most productive species. They provide terrific autumn/winter production and are well suited to sub-clover as a companion species, which is dominant in John's soil type.

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