



Project Snapshot

Land Manager's Name/s:	Vernon, Amanda, Robert and Daniel Dempster
Property Size:	3,500ha ('Hopkins' 1,000ha)
Location:	Southern Brook
Annual Rainfall:	375mm
Enterprise mix	60% cropping, 40% sheep
Soil types/vegetation types:	Sandy to grey clays

Key Messages

- Trial new practices on a small scale first to 'iron out' any potential problems that might be encountered.
- Permanent perennial pastures may compliment your existing mixed farming enterprise in areas that are not suitable for cropping.
- Gatton panic is a vigorous perennial option on deep sandy soils.
- Seek assistance from specialists to make the adoption of a new practice easier.

Their story

Rob and Daniel are fourth generation farmers who grew up working on the farm since they were old enough to give their dad Vern a hand. After completing agricultural degrees they have both come back to the farm with a lot of passion and drive to improve the productivity of the family business.

One of their properties, situated north of Meckering and Dowerin has been a challenge as soil types are sandy and water repellent. To alleviate the problem over the last ten years Vern has had much of the property clayed, which has helped to improve crop yields and establish good pastures (sub-clover and serradella). However a few paddocks are yet to be clayed and it can be difficult to maintain groundcover across the expansive (90-120ha), wind exposed paddocks. For some time they have contemplated sowing perennial pastures but haven't been confident enough to plant something at a broad-scale due to the high associated cost (\$100 to \$150/ha) if unsuccessful.

In 2010, Rob's wife Jade, who worked in partnership with Wheatbelt NRM on the Soil Conservation Incentive Program, mentioned that the group was offering financial support to farmers to trial practices focused on reducing wind erosion. Rob then decided to apply for the funding, putting together an application to trial different perennial options at 'Hopkins'. "Receiving this funding was the help we needed to begin to understand if perennials could fit into our current production system on sandy soils".

Comparing the options

With the help of Natalie Hogg from the Department of Agriculture and Food, Rob designed two trials: one on a clayed paddock and one on a sandy, water repellent paddock. Both of these paddocks are situated low in the landscape, have a shallow water table, are vulnerable to frost and are dominated by African lovegrass. In September 2011, five perennial options were sown shallow using a DBS airseeder in non-replicated runs (60 m long) at both sites. These options included Gatton panic at 5kg/ha, Rhodes grass at 5kg/ha, Lucerne (3kg/ha), More-feed Summer Perennial mix (Corrow Seeds) at 7kg/ha and Southern Perennial mix (Heritage Seeds/Evergreen) at 8kg/ha. Both trials were also fenced to allow them to establish without being grazed.





Apart from some early insect attack on the seedlings post sowing, all the perennials established reasonably well due to a wet spring period and have been growing well ever since. “Visually I can’t say there is much difference in pasture establishment at the two sites”, Rob said. He added, “Gatton panic shows potential to be a good fit for summer or maybe even early autumn grazing. It is really vigorous and the sheep seem to like it”. Rhodes grass looks to be growing reasonable well too but Rob isn’t sure if it will stand up to sheep grazing as well as the panic. On the other hand Lucerne didn’t seem very suited to the soil. “Even though the Lucerne had access to a shallow water table, I think the soil might be too acidic”, Rob mentioned.

At this stage the Dempster family have not come to any consensus about the ‘best’ option as they still would like to understand the nutritional value of the perennials.

To gain a better understanding of this area they recently sought the knowledge of Phil Barrett-Lennard (agVivo Pty Ltd adviser and Grain & Graze Regional Coordinator). “The main benefit of this project has been to find out what will grow, but the trial is still ongoing as there is a lot we still don’t know.” Rob continued by explaining, “If Gatton panic does offer a high feed value during the summer and autumn period we would be keen to do a large scale planting”.

Some of the areas the Dempster’s are still unsure about include: ongoing weed eradication, pasture regeneration rates, frost tolerance and palatability for sheep (as the trials have mainly been fenced off). Rob highlighted his concern saying, “I hope Gatton panic doesn’t become a weed because it does grow quite vigorously”.

Lessons Learnt

An insect problem at establishment was something Rob hadn't anticipated. After some good spring rains, hoppers, redlegs and lucerne flea infested the trials and a high dose of insecticide was needed, along with a follow up spray a month later to control them. Though as expected the African lovegrass did prove difficult to kill. "African lovegrass could potentially be a big problem as it is hard to eradicate. We haven't tested weed wipers yet, but I think this may work", Rob mentioned.

Future Plans

As stated previously the Dempster family would like to integrate perennial pastures into the farming system and are contemplating fencing permanent cells to allow the perennials to be rotationally grazed at the sites. "We see permanent pastures are being a good fit on poorer sandy soils that are frost prone and therefore are not suitable for cropping", Rob said. He went on to say, "If we do decide to sow a paddock to perennials we would plant immediately after a hay crop".

Now having confidence that the DBS can establish perennials well, they would probably also use a slightly lower sowing rate to reduce the cost of establishing a bulk area. "I'm excited with the prospect of dropping crossbred lambs onto green perennials early in the year to gain lamb market premiums", Rob said.



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