Trialling improved pastures for yellow sands and saline areas

Project Snapshot

Land Manager Names:	**Michael & Kezia Metcalf**
Property Size:	**3500 ha**
Location:	**Dowerin**
Annual Rainfall (mm):	**250 mm**
Enterprise Mix:	**Cropping and Livestock**
Soil Types/Vegetation Types:	**Sand over loam, deep yellow sands, clay, tamma, red gum, salmon gum, melaleuca**

Key Messages

- **Pastures can be a complimentary addition to areas planted to tree alleys by further preventing wind erosion and providing summer grazing for livestock.**
- **Trial alternative approaches if current practices are not adequately suited to the land. Though utilise the expertise of people 'working in the field' if your knowledge is limited on the alternatives.**
- **If conditions are not favourable, hold off seeding until the following year to prevent failed establishment.**

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Their story

Recently married couple, Michael and Kezia Metcalf live and work on the family farm in Dowerin. From previous correspondence with Sustainable Agriculture Project Manager, Georgie Troup, Kezia became aware of available funding through Wheatbelt NRM's Soil Conservation Incentives Program. Together they investigated possible project ideas for trialling pasture varieties on the farm to improve the profitability of the sheep enterprise.

After some consideration of project ideas, the Metcalf's decided to trial an array of pasture species at two separate sites. The first site was an 88 ha paddock characterised by deep yellow sands that had been planted to acacia and melaleuca alleys 2-3 years prior. While the second site was a 35 ha area characterised by moderately saline, heavy clay that had been sown to saltbush alleys. Michael and Kezia had been sowing oats and barley, respectively, at the sites between the alleys to reduce wind and water erosion, but this exercise was relatively unsuccessful and costly. With assistance from Natalie Hogg, from the Department of Agriculture and Food, Northam, they decided to try yellow serradella (Charano and Yelbini) at Site 1 and a mix of burr medic (3kg/ha Scimitar), balansa clover (2 kg/ha Frontier) and tall wheat grass (1 kg/ha) at Site 2.

Lessons Learnt

Due to poor seasonal conditions in 2012 the yellow serradella was sown later in the season at 7 kg/ha with ALOSCA Group S and therefore did not germinate very well. The weeds then took over, meaning that the area trialled had to be sprayed out. "The deep yellow sands seem better suited to deep rooted tree crops such as acacias and perhaps sandalwood, which we intend to trial in the future", Kezia said.

Whereas, at Site 2 the salt tolerant pasture species thrived (probably because of greater water retention) and weed growth was minimal because of the improved pasture growth. As desired the planting has reduced the impact of wind and water erosion, and also provided quality summer feed for livestock (October-December 2012). "The salt tolerant pasture species were outstanding and we would definitely consider in-fill and continuing this practice on a larger scale in the same area", Kezia commented. "We have increased summer feed available at the site, which is very beneficial in any year but especially the leaner years", Kezia added. She went on to say, "This has enabled us to carryover sheep for longer periods meaning we are better able to capitalise on the market".

"We are happy with the success of the project even though site 1 wasn't successful. We at least know what we need to do in order to improve the productivity of the site, having rules out another option" mentioned Kezia of her involvement in the project.

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