sustainable agriculture

Wind erosion prevention on Careema Farms

Project Snapshot

Land Manager's Name/s:	**Gary, Janet and Beau Repacholi**
Property Size:	**4,960 ha**
Location:	**Kondinin**
Annual rainfall (mm):	**325mm, however some recent years has been closer to 200mm. In 2011 the property had 490mm including summer rain. This extra subsoil moisture has helped their 2012 crop in what would otherwise have been a very challenging year.**
Soil types:	**The soil is strong loamy salmon gum, morrel, mallee through to mallee sandplain. About 300 hectares of remnant salmon gum woodlands on the property, however this is degrading due to salinity.**
Catchment:	**Careema Farms is low in the catchment area, which starts approximately 15-20 kilmoetres to the north east of the property. The catchment flows into the Camm River.**

This project is supported by Wheatbelt NRM, through funding from the Australian Government's Caring for our Country.

Background:

Gary and Janet Repacholi have been planting between 4,000 and 6,000 trees a year since the mid-1990s and saltbush since 2000. At first they fenced around the edges of saline creeklines and planted eucalypts using the shire tree planter to thicken up some existing patches.

In 2009 they had read about oil mallees, a neighbour had planted some and then they talked with David McFall of the Upper Great Southern Oil Mallee Growers Association. David mentioned that there was funding available through Wheatbelt NRM so they thought they would give mallees a go. In 2010 they planted their first mallees through Wheatbelt NRM.

The Wheatbelt NRM funded project:

Purpose: To provide windbreaks and water use

The past two years have been hard and not conducive to planting trees. 'But oil mallees and saltbush are good survivors'.

- **2010:** On 125mm of rain, Gary and Janet planted 35,000 mallees. With very little rainfall after the planting they were encouraged by the survival rate. While not so good on the sand plain country, they achieved over 90% on the loams and duplex soils.
- **2011:** planted 20,000 oil mallees and 10,000 saltbush plus 4,000 infill mallees at the 2010 site. The survival of the 2011 plantings was approximately 95%.

In 2012 they used their own funding to plant a further 2,000 oil mallees and 8,000 salt bush.

The site design and site marking was mostly done by Gary himself with input from David McFall. David helped work out the number of seedlings needed and helped to put the original Wheatbelt NRM grant application together.

The mallees only went into paddocks that were going into crop. As the paddocks were already sprayed in preparation for the crop, this saved in establishment costs. Gary then ripped, scalped and planted the trees through the crop in a one-pass operation using the Shire tree planter (an old Chatfield machine.) The paddocks were not grazed until March of the following year.

Tree planting can be a very social occasion and an opportunity to bring friends together to help. While the Repacholi's did have a local contractor in to plant the 35,000 seedlings in 2010, friends came in the winter of 2011 to help with that year's planting.

Planting design: Most of the trees are in 6 paddocks with some in creeklines and below grade banks. The oil mallees were planted in 4-row (2 double rows with just over 2.5m between them), 6 metre wide belts with 1.8 metres between the trees in the rows.

Benefits:

- **Pleasant to the eye, makes a difference to the look of the landscape**
- **Wind erosion control**
- **Some salinity control**
- **Protection for the sheep**
- **Provide habitat for birds**

Lessons learnt:

- Need to be flexible in regards to where to plan and the layout according to seasonal conditions. The trees are ordered so they will be delivered and need to be planted, so sometimes you need to reconsider where and how to plant if your chosen site is too dry, or unaccustomed as we are to this over a number of years, too wet. If time permits it is very beneficial to rip proposed lines the year prior to planting.
- Need to be careful when ordering for the same reasons.
- Tree planting time is a very busy time of year with spraying and shearing as well. Planting needs to be done in-between other jobs.
- Seek expertise first, look and talk with neighbours

Into the future:

Gary and Janet plan to keep planting. They see this as a long-term project and will do more with their own funding.

"The most important benefits will be in the future, for windbreaks to prevent soil erosion and protect livestock and areas of salinity. Aesthetics and birds will be a bonus."

CARING FOR OUR COUNTRY

wheatbelt natural resource management

Oil Mallee ASSOCIATION

www.wheatbeltnrm.org.au

Wheatbelt NRM
PO Box 311
Northam WA 6401

Phone: (08) 9670 3100
Fax: (08) 9670 3140
Email: info@wheatbeltnrm.org.au