

TreeNote

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Farmer experiences in farm forestry

Guy and Leanne Wardell-Johnson, Winnejuup

Guy and Leanne Wardell-Johnson have been planting trees on their farm for about 10 years. They started in a small way when Guy's father Rob, used a spade to plant a few trees to control a couple of developing seeps and to provide shelter for stock. Over time, their establishment system has incorporated the use of ripping and both knockdown and residual herbicide. They use the trees for shelter strips, windbreaks, dam protection, fence posts, sawlogs and rental income from a plantation company. Tree planting is an ongoing activity on the farm, integrated with farm planning and re-fencing.

Early days

The first tree planting on the farm began in the early 1980s. This was on an area of shallow rock, upslope from a small dam, and on a couple of seeps developing nearby. *E. rudis* (flooded gum), *E. camaldulensis* (river redgum) and *E. wandoo* (wandoo) were planted above the dam and *E. grandis* (rose gum), *E. botryoides* (southern mahogany), *E. globulus* (Tasmanian bluegum), *E. patens* (blackbutt) and wandoo were planted on the seep. No site preparation was used; Guy and Rob walked along with a spade, digging holes and planting the trees. The scalds are now stabilised and most of the trees are growing well.



Guy and Leanne will plant trees around their irrigation dam to act as a biological filter. The trees will be planted in the area where rushes are presently growing.

Using trees for shelter

The first large scale planting on the farm was a series of *E. globulus* (Tasmanian bluegum) windbreaks established in 1989 and 1990. About 90 lambs had died the previous year in a paddock exposed to north-westerly winds. Guy and Rob wanted to provide some more shelter for exposed paddocks. The five-row tree lines were ripped and knockdown herbicide was used to control weeds. Competition with weeds in the first year caused about half of the trees to die. The gaps were filled in the following year but these trees never caught up. After this experience, Guy moved to using both knockdown and residual herbicide for tree establishment.

Although they were initially established for shelter, Guy has begun to manage the trees for timber in the longer-term. Last year he pruned the lower branches and noticed that the tree lines that were oriented east-west, required less pruning than the lines oriented north-south. Last season the paddock was used for lambing. Ewes made full use of the trees, lambing within the shelter belts with no losses.

Farm forestry's major benefits: Wardell-Johnsons'

- Extra income.
- Shelter.
- Groundwater control.
- Repair of scald (saline seeps).
- Source of fence posts.

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These bluegums were established for shelter and are now being managed to produce timber.

Guy and Leanne established a multi-layered windbreak in 1992 to protect the house from westerly winds. The windbreak design uses three layers with trees of different heights. Smaller trees were planted on the west row and larger trees on the east row. Some of the larger trees were form-pruned to produce timber. Smaller trees will not be pruned in order to maintain shelter. Some of the *E. platypus* (coastal moort) and *E. lehmannii* (Lehmann's mallee) blew over in strong winds.

Establishing a commercial bluegum plantation

On the east side of the farm, a bluegum plantation was established through a sharefarming scheme with Bunnings Treefarms in 1991. The 80 ha plantation provides a steady income through regular lease payments. Most of the plantation is growing well, with the exception of a 20 ha section on the south side of Falnash Road. This area has shallow soil (less than 2 m deep) over rock and areas of claypan with waterlogging (flooded gum country). Although this area is under lease for two rotations (about 20 years) and still earns Guy and Leanne the same payments as the area which is growing well, they would rather see it put back into pasture after the first rotation. Bunnings Treefarms have indicated that this may be a possibility.

Guy believes that there are many trees that will produce timber products in the long-term on country that will not grow Tasmanian bluegums. On the north side of Falnash Road, Guy and Leanne have established an arboretum of various hardwood species. These will be harvested for timber in the long-term, and in the shorter-term will provide a visual buffer when the bluegums are harvested.

Smaller paddocks

In the Bridgetown–Boyup Brook area, Guy believes that traditional grazing management is no longer suitable for wool production. One of the main problems is the abundance of feed in spring followed by a long dry break. If he had the equipment and resources, Guy would ideally like to work on techniques of fodder conservation such as hay and silage making, or the production of lucerne. He is presently using fencing combined with grazing management to maximise the utilisation of feed. The main land management units on the farm are separated by creeks and lend themselves well to contour fencing. His target over the medium-term is to reduce the average paddock size to about 12 ha. Once this is achieved, temporary fencing can be used to break these into even smaller areas.

Future tree planting

Future tree planting will be incorporated in the division of paddocks into smaller areas. The controlled grazing of these paddocks would allow better production and utilisation of winter pasture, and the trees would provide shade, shelter and timber products.

The creeks on the farm are being progressively fenced off and used for controlled grazing in the summer and autumn months. Under this management regime there is strong regeneration of flooded gums and the drainage lines are stabilised. Another use for trees on the farm is to stop sheep walking up and down the slope in areas prone to erosion. Hard fencing is used around trees planted on the contour, forcing the sheep to walk around the unstable areas.

Further information

Contact your local office of the Department of Conservation and Land Management or Agriculture Western Australia for the name of your nearest adviser representing the Farm Forestry Advisory Service. Other *TreeNote* titles are available from these offices in the higher rainfall area of southern Western Australia.

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