

PRACTICALITIES

DIRECT SEEDING DOES WORK IN LOW RAINFALL AREAS

by Avril Baxter

DAVE and Barbara Morrell have had great success in direct seeding native vegetation on their property at Pingrup, in a 350 mm rainfall zone.

The Morrell's had planted over 100 000 seedlings on their 2 200ha property in the last twenty years. However, a visit to Gary and Marion Gilmore's property at Jerramungup, opened their eyes to another method of revegetation – direct seeding. Dave and Barbara realised that they too could create a more natural stand of native vegetation at a much reduced cost.

In the last four years, they have established 27ha of thirty metre wide fenced revegetation belts below grade banks. This system allows them to harvest water into dams, control surface water, prevent some of the recharge to the groundwater system, crop on the contour and provide a system of windbreaks throughout the landscape.

The dense plantings of shrubs and trees will also provide excellent wildlife habitat. When the system is complete it will connect 300ha of high quality fenced remnants within the property to neighbouring farm remnants and Shire road reserves.

Seeds from “easy to collect plants”, such as sheoaks, eucalypts, melaleucas, hakeas and other understorey species are collected from bush blocks within the property and surrounding areas. This ensures local species are planted, enhancing the chances of success and maintaining a local identity to the landscape. Wattles, peas and grevilleas which generally ripen during busy farming periods are purchased and mixed with their own seeds.

Seeds are collected throughout the year. Mature seed pods are dried on plastic sheeting in the shearing shed. This takes between one and three weeks depending on the time of the year and type of seed. Dominant varieties are stored separately and all understorey species kept together. This ensures a good mix of varieties when seeding occurs.

Their direct seeding system has evolved over the last four years. Ground preparation is critical and begins the year before with regular crop or pasture weed control to reduce seed set. At the break of season in the year of planting, the area is sprayed with a knockdown and residual herbicide. Later, the top 6 cm of the surface is scalped with a grader to remove any weed seeds left in the ground. The windrows created by the scalping are sprayed with a residual herbicide to prevent weeds from growing on the disturbed soil and reinvading the direct seeded area during the second year. Seedlings are planted on the windrows. Immediately after scalping, the ground is scarified, to break up the clay and allow moisture to penetrate.



Ground preparation is critical to success (photo: A. Rick)



One year old seedlings have germinated well in wheel ruts (photo: A. Rick)



Two year old direct seeded corridor (photo: A. Rick)

After the farm cropping and tree seedling programme have been completed, the area is once again scarified and sprayed with insecticide to control ants and red legged earthmite. Seeds are treated with smoked water and an

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*Dave Morrell in a one year old direct seeded windbreak
(photo: A. Baxter)*

icecream container of seed is mixed with a two litre bucket of general farm fertiliser and topdressed through the super spreader. The Morrell's have had more success when using fertiliser as a bulking agent than with either sawdust or sand. This amount covers 200-300 metres of the 30 metre wide belts.

Soils in Pingrup are very variable changing several times within each paddock. Having a good mix of seed allows nature to chose the varieties best suited to each soil type. This system has not worked on difficult grey clays. Next year, seed will be collected from remnants on grey clays and seeded separately to other soil types to see if the success rate increases.

Direct seeding 30 metre wide strips of natural vegetation is a very rewarding experience for the Morrells'. Reduced windspeeds will enhance crop production, waterlogging and salinity problems in discharge areas are lessened and fauna is on the increase in both variety and number. Collecting their own seed means that they can revegetate 5ha of land with naturally occurring species for under \$1 000 and they also get to spend time wandering through their bush!

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