

# Industry in Climate change

## Timber production from farm- a case study for a changing climate

Incorporating trees for the future has so many benefits for farms that at least 10% of every farm should be under some sort of tree vegetation” This is the view of Philippa Noble, who with her husband Simon, owns a farm at Brimin on the Murray River where they produce prime lambs, plantation timber and crops. With an Agricultural Science degree, and post graduate training in aquaculture, climate change and ornithology, and over 30 years advising farmers in resource management, agriculture and farm forestry, Philippa has seen what works and what doesn't in growing farm trees well adapted to the vagaries of climate.

“Incorporating timber production in revegetation projects is so valuable for our future, as not only does the growing tree remove carbon dioxide from the atmosphere, the use of timber in buildings continues to store the carbon for many years while the harvested tree resprouts or is replanted.

Philippa started planting trees on their property as soon as she and Simon arrived at Brimin thirty years ago. They have continued planting a manageable area every year and are now harvesting and milling the first of their Spotted Gum (*Corymbia maculata*) and Sydney Blue Gum (*Eucalyptus saligna*).



A row of gums showing gaps where selective harvesting annually has occurred.

All photo's were taken by Sophie Enders on Philippa and Simon's property at Brimin.



Timber plantations integrated into farming land.

## Trees offer so much

The inclusion of forestry into the farm is also a good method for graziers to offset emissions from cattle and sheep production. The co-benefits of trees on farms include the provision of shade and shelter for stock and pasture plants and recycling of nutrients from deeper in the soil profile, reducing the need for fertilizer application. If planned and designed well, timber plantations can also have added benefits for biodiversity, salinity control and improve the working environment on farm.

A study by Loyn et al.(2007), highlighted the need for each farm to have at lease 10% of their land area under native vegetation or trees to assist in biodiversity protection, especially helping the many threatened woodland bird species.

Philippa stressed that if plantation establishment is undertaken properly, there is minimal input needed for the rest of the life of the trees. Good weed control is essential for the first year or two, protection from being eaten, and some form pruning of double leaders if timber production is the aim.

Growing trees is a good long-term investment which is carbon neutral and the timber is completely renewable if, after harvest, trees are allowed to coppice from the stump left in the ground or replanted. Once mature, selective harvesting of 5-10% annually can provide an ongoing income source.

## Timber industry challenges of climate change

The current forestry industry is highly dependent on Radiata Pine. This is currently coping well with climatic changes but is susceptible to being killed by fire. The ability of many native tree species to regrow after being burnt, can be a great advantage in the future. The biggest challenge the timber industry faces currently is there is simply not enough plantation trees out there to service the demand. The industry has also had to face historically negative press and reputation around large scale and clear fell plantations, which had reduced investment and farmer confidence in growing timber.

The inclusion of timber production on more farms, rather than large scale plantations, will mean the resource will be dispersed across the landscape, which is something the industry will need to adapt to. It will be a challenge managing the availability of timber sawmills to process future farm supplies, with many closing in Victoria due to reduced native timber supply. Adaptation by the industry could include the consideration of self-loading trucks, smaller sawmills distributed across the regions, and transport availability.

### **Things that smaller scale properties can do now:**

Plant more trees, integrate them into farms, there is always somewhere you can plant a tree.

Be patient as the process is slow but it makes the property beautiful and shaded in the summer, the wellbeing outcomes are huge - seeing nature around you all the time and knowing your are supporting biodiversity as well as contributing to reducing our carbon footprint is such a good feeling.

Philippa noted that “as we move into a changing climate, the species planted for timber harvesting will need to be carefully selected for drought and fire resistance. With the fire regime expected to increase, using native timbers from lower rainfall areas, such as ironbark, which are protected by thick bark and can regrow after fire, are a sensible choice”.

“With changing climate and greater weather variability, we will also need flexibility in the timing of establishment to account for years of drought and low soil moisture when plantings may have a lower success rate” reported Philippa. “Conserving all available soil moisture for at least a metre around the planting hole through good weed control can go a long way to increasing young plant survival.”

There will be a great opportunity for farm forestry to play a role in providing carbon offsets for the farm or to link to a carbon payment scheme. Incentives and potential funding to assist with the establishment of the initial first cycle of plantation is going to be important.

In order to get larger landscape change, a focus on farm revegetation with an economic return from timber or carbon, as well as environmental benefits will be needed.



Sawn and dressed timber ready for sale.

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