

Plantations – complementing Victoria’s native forest timber

What is the difference between plantation timber and native forest hardwood?

Plantations and native forests are both important sources of wood in Victoria.

There are two major plantations types across the State – *Pine* and *Eucalypt* Plantations.

Pine plantations contain exotic pine trees that produce softwood timber. *Eucalypt* plantations contain Australian *Eucalypt* species

and produce hardwood timber primarily for pulplog.

Timber harvesting in our native forests also produces hardwood timber and is designed to maximise the amount of high quality sawlog generated.

The type of timber produced by softwood plantations, hardwood plantations and our native forests varies depending on the species, the manner in which the trees are grown and the age at which they are harvested. Different timber is used for different purposes.

	Plantation softwood	Plantation hardwood	Native forest hardwood
Species	Mostly <i>Radiata</i> Pine	Mostly <i>Blue Gum</i>	<i>Mountain Ash</i> <i>Alpine Ash</i> <i>Mixed Eucalypt species</i>
Properties	<ul style="list-style-type: none"> - Herbicides and fertiliser used to control weeds and assist growth - Fast growing - Softer timber - Light coloured - Generally harvested on a rotation of 20 – 30 years for sawlog, earlier for pulplog 	<ul style="list-style-type: none"> - Herbicides and fertiliser used to control weeds and assist growth - Fast growing - Generally harvested on short rotations of 12 - 20 years - Clear wood with high fibre qualities - Difficult to utilise in solid wood products due to species and harvest age - Small amount managed on longer rotation to produce sawlogs 	<ul style="list-style-type: none"> - Generally grown without the use of chemicals - Harvested between 60 – 120 years of age - Very strong timber - Distinctive appearance - Naturally durable
Uses	<p>Grown for timber products such as:</p> <ul style="list-style-type: none"> - Moulding - Plywood - Chipboard - Structural and framing timber - Building products where strength is not a vital property <p>Pulp and paper based products such as:</p> <ul style="list-style-type: none"> - Newsprint - Toilet paper - Tissue paper - Packaging 	<p>Generally grown on short rotation for pulp and paper-based products such as:</p> <ul style="list-style-type: none"> - High quality paper - Packaging <p>Low quality sawn products including pallets</p> <p>Firewood</p>	<p>Solid timber products such as:</p> <ul style="list-style-type: none"> - Flooring - Furniture - Joinery - Mouldings - Structural building products that require strength - Fencing materials <p>Pallets</p> <p>Firewood</p> <p>Residue from harvesting is used for pulp and paper based products such as:</p> <ul style="list-style-type: none"> - High quality paper and printing products - Packaging

How are Plantations and Native Forests managed?

There are significant differences in the way plantation timber is managed when compared with our native forests.

Hardwood timber from our native forests is sustainably harvested every 60 – 120 years, giving it time to develop strength and appearance properties.

Plantations are managed as a farmed crop and harvested on shorter rotations to provide a financial return to investors. As a result, this wood does not develop the same size, strength and visual properties as timber from our native forests.

How much plantation timber is available to harvest in Victoria?

Currently, more than two-thirds of the wood used in Victoria comes from plantations.

There are around 220 000 hectares of softwood plantations¹ in Victoria and just over 200 000 hectares of hardwood (mostly *Eucalypt*) plantations².

Approximately 90% of hardwood plantations³ are being grown specifically for woodchips. Only a very small proportion of Victoria's hardwood plantations are currently managed to be harvested on a longer term rotation for sawlogs.

Why can't we just rely on timber from plantations?

"Victoria's current plantation crop is generally not the right mix of species and has not been managed to produce products for construction, flooring or joinery." **Professor Rod Keenan from the School of Forest and Ecosystem Science at The University of Melbourne (October 2010)**⁴.

Moving to a plantation-only timber industry in Victoria has been suggested as a way to transition out of native forest harvesting.

However, there are not enough plantations in Victoria to produce the volume of timber required to meet the community demand for wood and wood products. As a result, Victoria currently imports a significant number of timber products from native forest and plantation harvesting overseas.

A 'plantation-only' strategy ignores the fact that different timbers have different properties and not all timber can be used for the same purposes. Also, it does not acknowledge that the vast majority of plantations in Victoria are in the west of the State, while timber from native forests is currently processed around 500kms away in Victoria's east.

Almost all the 115 000 hectares of hardwood plantations planted in Victoria between 2000 and 2006⁵ will be harvested on short rotations primarily to produce woodchips. These plantations are unlikely to yield high quality sawlog timber even if left to grow for longer periods due to the species of tree planted and the way in which these plantations are managed.

When will there be enough plantation timber to meet all Victoria's needs?

The Victorian Competition and Efficiency Commission was told in 2005:

*"The area of specially managed plantations in Victoria for appearance grade sawn timber is tiny and needs to be increased but is unable to attract sufficient investment because of the very high initial investment and long rotations required. No such plantations will be available for 30 – 40 years."*⁶

The substantial plantation estate needed to truly replace the timber currently sourced from Victoria's native forests would require significant financial investment and access to expensive, high-quality agricultural land.

Investors would be required to wait for long periods before seeing a return on their money because of the time taken for trees to mature to the point where they can be used as sawlogs.

Rather than increasing, the rate of plantation establishment in Victoria has actually dropped in recent years, with only 2949 hectares planted in 2009⁷ – down more than 70 per cent from the 10 237 hectares planted in 2008⁸.

Conclusion

Plantations remain an important source of timber in Victoria.

They complement the timber which is produced from our native forests and reduce our reliance on wood and wood products imported from overseas.

However, our plantation estate is not able to replace the type and quality of timber we currently produce from our native forests.

¹ Australia's Plantations 2010 Inventory Update (Department of Agriculture, Fisheries and Forestry - DAFF)

² Australia's Plantations 2010 Inventory Update (DAFF)

³ Australia's Plantations 2009 Inventory Update (DAFF)

⁴ A new deal for Tasmanian forests? (Rod Keenan, ABC The Drum Unleashed, Oct '10)

⁵ ABARE Australian Forest and Wood Products Statistics, March and June Quarters (2007)

⁶ Cameron, JN Regulatory barriers to plantations in Victoria - submission on behalf of the Victorian Private Forestry Development Committee to VCEC, March 2005.

⁷ Australia's Plantations 2010 Inventory Update (DAFF)

⁸ Australia's Plantations 2010 Inventory Update (DAFF)

