



Native Sandalwood Industry Strategy for Western Australia: Six steps for a valuable, sustainable industry in regional WA

Western Australian sandalwood (*Santalum spicatum*) is an important part of the State's forestry strategy. It contributes to the growth and development of regional communities and grows both in the wild and in plantations.

The native sandalwood industry is based on two markets. The domestic production of sandalwood oil for use in perfumery, cosmetics and pharmaceuticals, and the export of sandalwood which is processed into a powdered wood blend for the agarbatti market. These markets combined generate almost \$40 million annually for the Western Australian economy.

The future of the industry is now secure following a restructure which is underpinned by more than \$245 million in long-term contracts across the supply chain.

The new structure provides market stability, opportunities for new entrants in the industry, employment and investment opportunities in regional Western Australia, and greater Aboriginal involvement in the industry.

The structure is consistent with the 2014 Parliamentary Inquiry into the Sandalwood Industry in Western Australia and was backed by robust community and stakeholder consultation.

At present, natural regeneration is not occurring at sufficient rates due to local extinction of small seed-dispersing marsupials and grazing from feral animals and livestock. It is vital that regeneration of Western Australian sandalwood continues and at present the majority of activity in the Rangelands is conducted by the Forest Products Commission. Backed by renewed security, industry now has a role to play in this area.

It is our objective to maintain a vibrant native sandalwood industry and add significant value to economic, environmental and social outcomes particularly for regional communities in the areas where there is natural sandalwood distribution.



The new industry structure provides greater community involvement in regional Western Australia.

The spiritual, therapeutic and healing properties of sandalwood have been recognised for thousands of years.



Six steps for a valuable and sustainable regional industry

The Forest Products Commission has worked closely with community and stakeholders to create six steps that will ensure the industry maintains healthy forests, provides benefits to local communities and contributes to economic success for all Western Australians.



Investment for industry participation in regional and Aboriginal communities

Wild Western Australian sandalwood grows naturally in remote and arid areas of the State, thriving where other resources struggle. Investment is required in these areas to maximise value for local communities. In 2016, contracts for the native sandalwood industry were restructured to expand regional development and create new opportunities for Aboriginal communities.

Actions

The Forest Products Commission will promote domestic processing.

Up to 200 tonnes of Western Australian sandalwood will be released for tender each year to encourage innovation and investment in regional communities and involving Aboriginal people.

Develop a Transition to Plantations Strategy to encourage investment in Western Australian sandalwood plantations.



Enhance value through best practice certification

Western Australian sandalwood is a renewable resource that can be grown, harvested and regenerated. The Forest Products Commission manages this resource to internationally recognised standards. This ensures that environmental, social and cultural values are preserved, adding value through expanded international market opportunities.

Actions

The Forest Products Commission will maintain its internationally recognised Environmental Management Systems (EMS ISO 14001) certification and pursue Australian Forestry Standard certification.

Value adding opportunities will be created through branding that recognises the legal source, regeneration efforts and the involvement of Aboriginal people.

Western Australian sandalwood nuts are similar to macadamia nuts and may form an important new part of the industry in the future – particularly as a crop able to provide an income from plantations prior to harvesting for wood.



Western Australian sandalwood oil is used as an important ingredient in the world's finest fragrance and aromatherapy industries.



Protect the industry from illegal harvesting

The illegal harvesting and theft of Western Australian sandalwood has caused significant disruption to the market. At the same time, this activity impacts on the sustainability of the resource. The State's new *Biodiversity Conservation Act 2016* provides modern, innovative and contemporary legislation to better protect the resource and industry. This Act supports increased penalties for illegal harvest to \$200,000 for individuals or \$1 million for corporations.

Actions

The Forest Products Commission will fund an extra position at the Department of Parks and Wildlife to work on the enforcement of new measures in the *Biodiversity Conservation Act 2016*.

The native sandalwood industry will be protected by implementing a Legality Verification System to allow the marketplace to trace sandalwood to point of harvest.



Ensure sustainability of wild Western Australian sandalwood now and for the future

Actively managing the harvest and regeneration levels of wild Western Australian sandalwood is essential for the ongoing sustainability of the industry. High levels of harvesting prior to regulation in 1929 combined with continuing disruptions to the natural landscape - the localised extinction of marsupials and grazing from feral animals and livestock - contribute to regeneration challenges. The Department of Parks and Wildlife considered these factors as well as the high levels of representation of wild Western Australian sandalwood within conservation reserves, which are not available for harvest, in setting the current licence quota at 2,500 tonnes per year.



Actions

The Forest Products Commission will invest in evidence based research to improve methodologies to improve regeneration of Western Australian sandalwood.

A Biodiversity Management Program for wild Western Australian sandalwood will be developed with the Department of Parks and Wildlife.



Promoting the value of Western Australian sandalwood in the community

The community must have confidence this high-value resource is being managed responsibly and reinforced with effective legislation. This industry is represented largely by stakeholders in remote and regional areas and not always in general view of the broader community. A better understanding of the native sandalwood industry can help educate the wider community on its importance and benefits.

Actions

The Forest Products Commission will develop outreach programs to promote farm forestry for Western Australian sandalwood and provide access to industry knowledge and know-how.

Educational materials will be created for use in schools and at Natural Resource Management forums.

The Forest Products Commission will work with Aboriginal groups to collect seed for the Sandalwood Dreaming project, a sustainable harvesting and regeneration initiative.



Encourage industry innovation

Innovation and market development will be essential for the long-term sustainability of the native sandalwood industry. The industry's base will be expanded progressively as plantations come on stream, providing opportunities to grow its market.

Actions

The Forest Products Commission will establish an innovation fund to promote new technologies and products that bring greater value to the industry.

A marketing committee will be established to develop industry-wide initiatives focused on promoting Western Australian sandalwood as a high-value resource.

Branding programs will be developed with industry to establish the identity of Western Australian sandalwood.

Western Australia has exported sandalwood since 1844.

Photo: State Library of Western Australia 010128PD



Western Australian sandalwood planted on farms can contribute to biodiversity outcomes, land management and stock protection, as well as being valuable investment for the future.






Wild Western Australian sandalwood distribution

Harvesting activities occur on pastoral leases and vacant Crown land. Half of the sandalwood taken is from dead trees.

There is a network of conservation reserves across the region where wild Western Australian sandalwood grows and is protected.

It is illegal to harvest wild Western Australian sandalwood without a licence from the Department of Parks and Wildlife.

-  Natural distribution of wild Western Australian sandalwood
-  Forest Products Commission primary wild Western Australian sandalwood supply area
-  Distribution of plantation Western Australian sandalwood



The Dryandra Woodland is a conservation reserve in the Wheatbelt region. It is the home of one of the remaining wild populations of woylies supporting the natural regeneration of Western Australian sandalwood.

*Map for illustrative purposes only

Western Australian sandalwood is unique

The Western Australian sandalwood story is our oldest – the Aboriginal people have used this resource for thousands of years, understanding both the healing properties and its use as a food source. Demand for Western Australian sandalwood has been strong for centuries, particularly in Asia and early Europeans quickly established that the product was unique and highly desirable, a status that has not waned in more than 170 years. It goes into a variety of products:



- perfumes
- cosmetics
- aromatherapy



- incense
- mosquito repellents
- carving



- edible nuts
- bush food

Did you know?

Western Australian sandalwood (*Santalum spicatum*) is a hemiparasitic tree that grows up to four meters tall and occurs south from the Hamersley Ranges, east to the South Australian border and to the south coast. It is dependent on nutrients and water from host trees to survive and grow, the best hosts being nitrogen fixing trees such as wattles.

Wild Western Australian sandalwood trees can produce fragrant heartwood from age 5-10 years, however in the arid Rangelands the trees require long time frames before reaching harvestable oil content.

Another commercial species, Indian sandalwood (*Santalum album*), is tropical and in Western Australia it is grown commercially in the Ord River Irrigation Area.

The woylie and regeneration of sandalwood

Studies have shown that wild Western Australian sandalwood regeneration has been poor for more than 50 years in semi-arid and arid regions of Western Australia, due to grazing, drought and poor seed dispersal.

This coincides with the disappearance of small marsupials, such as the woylie, from this region. However, at Dryandra Woodland, where woylie populations exist, it was noticed about 15 years ago that there were reasonable rates of sandalwood regeneration.

Acting on this observation, the Forest Products Commission and Murdoch University researchers discovered that the disappearance of native marsupials had significantly influenced wild Western Australian sandalwood's ability to regenerate.

In 2005, this research found that woylies ate and hoarded sandalwood seeds in shallow diggings and this knowledge has allowed the Forest Products Commission to refine its regeneration strategies in the Rangelands.

The lack of woylies is not the only impediment to successful regeneration. Feral goats and rabbits have a voracious appetite and stress native vegetation, including young wild Western Australian sandalwood saplings. To address this, the Forest Products Commission is working with land managers.

The Forest Products Commission promotes the sustainable management and development of Western Australia's forest and wood products industry using native forest, plantation and sandalwood products on land owned or leased by the State. We ensure the immediate and ongoing production of wood products today and into the future while also protecting other forest values such as biodiversity, community recreation, clean air and water for generations to come.

Contact details

To provide feedback or seek further information email info@fpc.wa.gov.au or contact the Forest Products Commission on (08) 9363 4600.

Our mechanical woylie seeding machine covers 850 km and plants 5,000,000 seeds each year.

