

SANDALWOOD

Background

Western Australian sandalwood (*Santalum spicatum*) was first exported from Western Australia in 1845 and for most of this industry's history the resource has been derived from natural stands.

Between 1892 and 1901 more than 50, 000 tons were exported from Western Australia with nearly all this wood derived from the wheatbelt as agricultural country was opened up. To put this figure in perspective, today's harvest is about 2000 tonnes per year.

Sandalwood is a small tree (up to 4m) that occurs naturally in the southern half of WA extending south from the Hamersley Ranges, east beyond the border with SA and south to the south coast. Natural stands of sandalwood were common in the Wheatbelt before agricultural clearing, but today the harvesting is mainly confined to the rangelands.

Resource

In August 2000 a sandalwood resource statement was completed based on inventory work carried out between 1995 and 1999. The statement indicated that the green sandalwood resource available for harvest on Crown land was in excess of 200 000 tonnes and the quantity of dead sandalwood available for harvest was in excess of 15 000 tonnes.

This resource excludes sandalwood occurring in National Parks, Nature Reserves, Conservation Parks and other tenure where sandalwood harvesting is not permitted.

Conservation.

The overall objective of the Forest Products Commission, in relation to harvesting natural stands is to conserve sandalwood in WA and at the same time maintain the sandalwood industry by reducing the harvest of natural green wood resource and supplementing the natural resource by the increasing use of plantations.

The Forest Products Commission, is responsible for the commercial harvesting, regeneration, marketing, and development of the sandalwood industry both in plantations and natural resource areas. The Department of Conservation and Land Managements has the responsibility for the environmental management of the species. The separation of resource user and resource manager ensures the long-term ecological integrity of WA sandalwood species is not compromised.

At present the total area of distribution of *Santalum spicatum* is approximately 161 million ha of which 80 million ha (49%) is protected from any form of harvesting.

The FPC has initiated and funded a number of projects aimed at assisting land managers and pastoralist adapt current land management practices to facilitate the natural regeneration of sandalwood. This has included assistance with feral animal control to prevent overgrazing of seedlings and the implementation of Total Grazing Management (TGM) systems to accommodate both grazing and sandalwood production on stations.

Uses

Western Australian sandalwood is presently exported to South-East Asia for the manufacture of incense or joss sticks. It is also exported to India for the production of oil.

Within domestic markets it is used by a number of Western Australian crafts people and furniture manufacturers for incorporation with other timbers to accent or highlight particular pieces. This has been facilitated by research conducted at the Forest Products Commission's Timber Technology Centre into milling, drying and veneering Western Australian sandalwood to allow value adding.

At Albany, Western Australia, a private company, Mt Romance Australia, have established an essential oil facility that not only extracts sandalwood oil, but also uses the oil in a wide range of cosmetic and therapeutic products. The development of this facility also provides incentive for the establishment of sandalwood tree crops as growers have a local buyer for future harvests and are not restricted to export sales.

Another WA company, New Mountain, has commenced production and sale of mosquito deterrent incense sticks. These are marketed nationally and internationally and represent further value-adding of the States sandalwood resource.

Harvesting

The current annual harvest is approximately 2000 tonnes per annum, which normally comprises 50% dead and 50% green sandalwood. Private contractors harvest this under contract. Harvesting contractors are combinations of full time and part time operators with contract quotas varying in size from between 10 tonnes per annum up to 250 tonnes per annum.

Pastoralists and aboriginal communities make up a large percentage (>50%) of current contractors. Contractor payments represent a significant level of government expenditure in rural and remote areas.

Processing and marketing of all Crown land sandalwood is conducted by Wescorp International, a private company who were awarded the contract through a public process. Wescorp process the harvested sandalwood to

specification and arrange for the shipment of sandalwood to foreign and domestic buyers.

External auditors have certified all sandalwood planning, harvesting and silvicultural activities of the FPC against ISO 14001.

Markets

The traditional markets of Taiwan and Hong Kong who purchase in excess of 60% of annual production dominate current sales. Other major markets include Malaysia, Singapore, China, India and Thailand.

Mount Romance Australia are the major domestic buyer and their goal is to become the major exporter of WA sandalwood oil into world markets.

Future

It is clear that Western Australian sandalwood has the potential to become an important tree crop in many low rainfall areas of Australia. Ongoing research is still required particularly in relation to silvicultural management of plantation stands over time. While the commercial outlook based on current returns is strong, it must be appreciated that timber from a plantation resource will not match timber from the natural stands in terms of quality or quantity for some considerable time, and care should be taken when projecting future returns.

The ongoing sustainable harvest from natural stands will continue to meet current market demand into the foreseeable future and coupled with a strong market presence will provide the opportunity to sustain the existing industry while integrating plantation derived resource into the markets over time.