

Forest growing and processing in Otago–Southland

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A rich history of commercial forestry activity

Commercial forestry has been a feature of the Otago–Southland landscape for more than 160 years. A water-powered mill was established on the Leith Stream (a couple of miles from the Octagon) in 1849, and in 1876 New Zealand's first mechanised paper-making facilities were established in Dunedin and Maitaia (near Gore). The early timber industry depended on the region's natural timber resources.

Plantings of introduced species commenced in 1898 at Conical Hill and Naseby, and the first production thinnings were processed in the early 1930s, with larger-scale processing occurring in the post-war period. The Dunedin City Council began planting what is now the City Forests Estate in Dunedin water catchment areas in 1906 with the objectives of stabilising soil, improving water quality and growing a commercial tree crop.

The planting patterns in Otago and Southland have mirrored those in other regions, with significant periods of planting in the 1920s and 1930s, 1970s and 1980s, and the mid-1990s through to the early 2000s.

The forest estate today

The plantation estate in Otago and Southland stands at approximately 206,000 ha, and has grown by around 60% in the past 25 years. Significant new plantings are underway.

The resource is divided 60:40 between Otago and Southland, and the combined region has 12% of the national estate (April 2015). The principal area of planting in Otago is the Clutha district, with two-thirds of the regional estate (83,100 ha), and in Southland the majority of plantings (94%) are located in the Southland district (76,700 ha). Sizeable areas of plantation forestry have also been established in Central Otago, Dunedin City, Gore and the Waitaki District.

The Otago–Southland region has six major growers with holdings of more than 10,000 ha, and a number of smaller corporates and syndicates with holdings ranging from a few hundred hectares to several thousand hectares. The region has a significant small grower base, comprised mainly of farm and private holdings.

Composition of the estate

Over the past generation the percentage of the estate planted in Douglas-fir has risen from 10% to 24.4% in Otago, and from 7.5% to 30.7% in Southland. Douglas-fir plantings (across the two regions) now total

55,500 ha. This equates to almost 53% of the national resource and will provide growers and processors with long-term market opportunities as this resource matures and production volumes rise.

While not on the same scale, the Otago–Southland region has a sizeable cypress resource, which has been developed over the past 30 years. This resource has been developed for higher value end uses.

Radiata pine continues to be the major species planted, with just on 70% of the estate in Otago (87,000 ha) and 53.4% in Southland (43,600 ha). For drier, higher altitude sites, particularly those affected by snow conditions, there is growing interest in the opportunities provided by hybrid pines such as *P. attenuata x radiata*.

The Southland region has a substantial eucalypt resource of 11,400 ha, which is grown primarily for chip production. The eucalypt plantings in Otago and Southland represent 54% of the national estate.

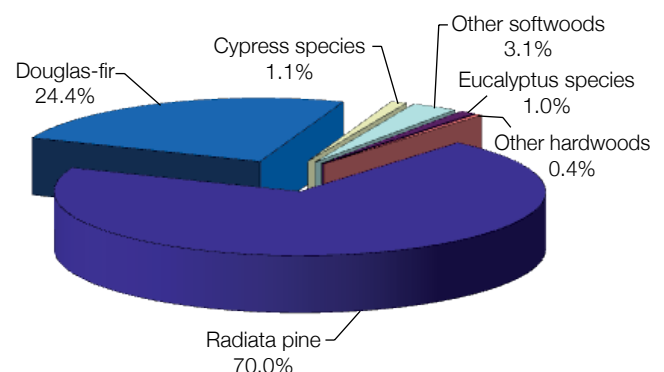


Figure 1: Composition of the Otago plantation estate (124,400 ha – NEFD 2015)

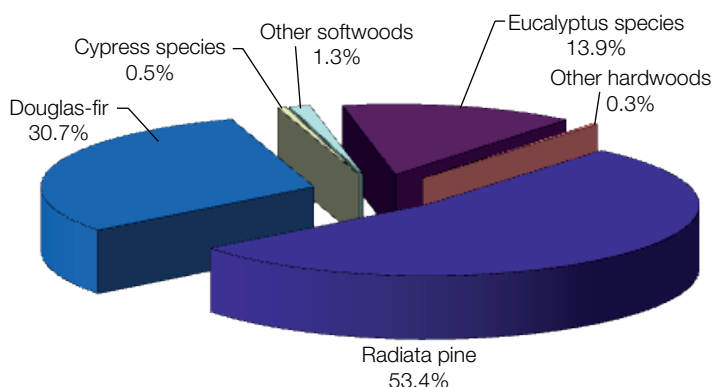


Figure 2: Composition of the Southland plantation estate (81,715 ha – NEFD 2015)

Wood availability forecasts

New wood availability forecasts were prepared for Otago and Southland in 2014 for the Ministry for Primary Industries by Indufor Asia Pacific. The forecasts were prepared in conjunction with the local industry and included a combined forecast for Douglas-fir and radiata pine.

The combined forecast used harvest intentions data from the major growers (for the first 10 years), target rotations of 28 and 40 years for radiata pine and Douglas-fir respectively, and had a non-declining yield constraint. The results indicate that from 2029 a sustainable harvest of around 3.0 million m³/year is possible from the combined estate. Douglas-fir will play an increasingly important role from the late 2020s, with the maturing of this resource and with the supply of radiata pine from small growers tapering off.

Harvesting and processing activity

Annual roundwood removals from the combined Otago–Southland wood supply region have ranged between 2.0 and 2.1 million m³ for the 2011 to 2015 period (MPI estimates). This equates to approximately 7% of the national harvest. Over this period, the proportion of the harvest processed domestically has ranged between 40% and 45%. The principal outputs are rough sawn timber (an average of 343,000 m³/year between 2011 to 2015) and medium-density fibreboard (MDF) at the Dongwha Mill in Matura.

Sawn timber exports have averaged 191,000 m³/year over the past five years, with substantial volumes going out through both Port Chalmers and Bluff. The log export trade from the combined region has averaged just under 1.1 million m³/year (2012 to 2016), with approximately two-thirds of this volume passing through Port Chalmers.

Current processing development: Pan Pac

Phase 1

The Pan Pac Forest Products sawmill in Otago recommenced operation in April 2015, with a current production of 43,000 m³/year. City Forests, Wenita, Matariki, Log Marketing NZ, IFS Growth, Venture Forestry, Forest Management and Calder Stewart all supply logs. The mill has 28 full-time employees plus one contractor, with staff seconded from Pan Pac. As well as the domestic market, product is exported to China, Thailand and the rest of Asia via the Port of Otago.

Phase 2

Activity is being consolidated at the 37 ha Milburn site. NZ\$23 million is being invested in a continuous kiln, boiler and drymill, with new offices and upgrades to sawmill infeed and equipment.

Summary

The Otago–Southland forest, harvesting and processing industry is in good health. There is a diversified estate and significant new land plantings are underway. Annual harvest volumes are also expanding over time. Good returns are achieved by forest owners from a buoyant domestic and export log market. Domestic processing capacity is also expanding and there is a healthy supply/demand tension between growers and processors. Most importantly, the major players in forestry and processing are unified in their approach to growing the industry and improving safety, training and industry promotion through the Southern Wood Council.

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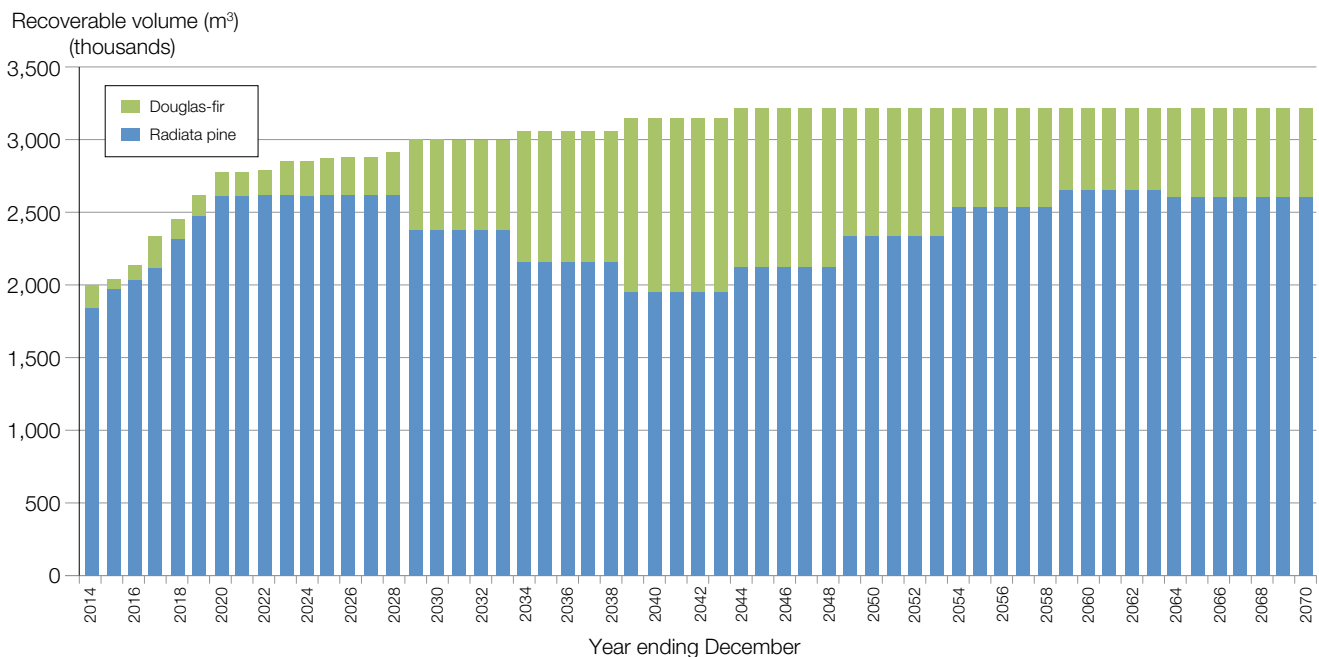


Figure 3: Otago–Southland Douglas-fir and radiata pine combined availability – all owners (includes volumes from production thinning). Forecast prepared by Indufor Asia Pacific for MPI (2014)