

# A snapshot of plantation forests as at 1 April 2006

Paul Lane

The latest *National Exotic Forest Description* (NEFD) has recently been published. It shows New Zealand's planted production forests covered an estimated 1.80 million hectares as at 1 April 2006. An additional 37,000 hectares of forest land was awaiting restocking following harvest. Taking into account the area awaiting restocking, the area of planted forest fell by 16,600 hectares in the year ended 31 March 2006.

The NEFD is published annually to assist with resource and policy planning. It provides data aimed to help infrastructure planners involved in the provision of transport (road, rail and ports), the energy sector, and for labour related planning issues. The information is also used for developing and monitoring public policy, for meeting a growing range of international reporting needs and as a starting point for investigating wood processing opportunities in New Zealand.

## Location of Forests

Seventy percent (1.3 million hectares) of the total forest area is in the North Island and thirty percent (0.5 million hectares) is in the South Island. Thirty-one percent (551,000 hectares) of the forest area is in the Central North Island.

## Age Distribution

Figure 1 shows that the areas of forest planted from the late 1970s to the mid-1980s are now approaching harvest age. Also, the large areas of forest planted between 1992 and 1998, now eight to 14 years old, are very apparent. Harvesting of these areas will begin around 2020.

Very little forest area is older than 32 years, a reflection of the economic rotation age of the dominant species, radiata pine. Radiata pine is typically harvested between 26 and 32 years old. The average clear fell age for radiata pine was 28.2 years in the reporting year (year ended 31 March 2006). The radiata pine average clearfell yield was 486 cubic metres per hectare in this same period.

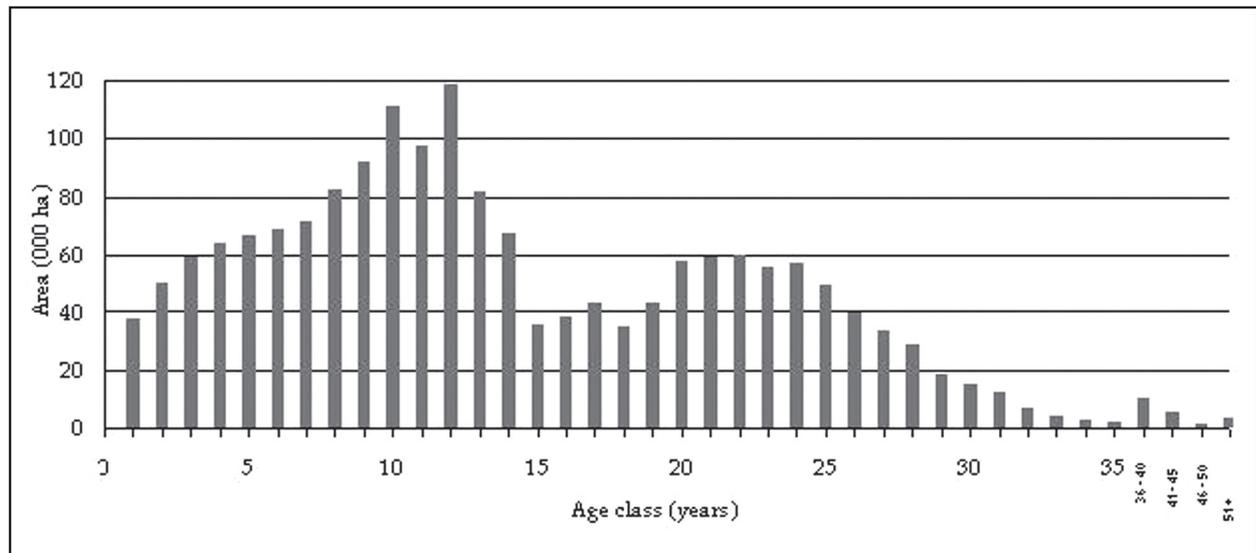
## Species and Silviculture

Radiata pine is the dominant species, making up 89 percent (1.6 million hectares) of the planted forest area. Douglas-fir is the next most common species, making up six percent (113,000 hectares). Almost 50 percent of the area of Douglas-fir is in the Otago/Southland region, although much of this is relatively young. The remainder of the area is planted in other softwood and hardwood species. The 2006 report also provides area age class data for both cypresses and eucalyptus species. Data specifically covering cypresses and eucalypts was first collected in 2005.

About 62 percent (993 000 hectares) of the radiata pine planted forest estate is, or is expected to be, pruned to a height of at least four metres. Approximately 11 percent (110 000 hectares) of pruned radiata pine is older than 25 years, while 17 percent (173 000 hectares) of pruned radiata pine is between 21 and 25 years old. Seventy-two percent (710 000 hectares) of the pruned radiata pine is 20 years old or under.

The area of production thinned forest has declined over the last decade. Approximately 16 percent of the radiata pine forest currently is, or is expected to be, production

Figure 1: Total estimated planted production forest area by age class as at 1 April 2006<sup>1</sup>



Note

<sup>1</sup> The area is shown for each age up to 35 years. After this, five-year age classes are shown.

Table 1: National Exotic Forest Estate Statistics

<b>Area and standing volume statistics</b>	<b>As at 1 April 2005<sup>1</sup></b>	<b>As at 1 April 2006</b>
<i>Forest area</i>		
Total net stocked area (ha)	1 811 000	1 800 000
Harvested area awaiting restocking (ha)	42 700	37 100
<i>Growth characteristics</i>		
Standing volume (000 m3)	404 548r	418 152
Average standing volume (m3/ha)	223r	232
Area-weighted average age (years)	13.9	14.3
<i>Area by species</i>		
Radiata pine (ha)	1 611 000	1 603 000
Douglas-fir (ha)	115 000	113 000
Cypress species (ha)	6 000	7 000
Other softwoods (ha)	28 000	28 000
Eucalyptus species (ha)	33 000	31 000
Other hardwoods (ha)	18 000	18 000
<i>Radiata pine area by tending regime</i>		
Pruned with production thinning (ha)	226 000	219 000
Pruned without production thinning (ha)	793 000	774 000
Unpruned with production thinning (ha)	40 000	39 000
Unpruned without production thinning (ha)	541 000	571 000
<b>Planting statistics</b>	<b>Year ended 31 December 2004<sup>2</sup></b>	<b>Year ended 31 December 2005</b>
<i>New planting</i>		
Total estimated new planting (ha) <sup>2</sup>	10 600	6 000
Restocking (ha)	39 600	31 900
<b>Harvesting statistics</b>	<b>Year ended 31 December 2004<sup>3</sup></b>	<b>Year ended 31 December 2005</b>
<i>Harvesting</i>		
Area clear felled - all species (ha)	39 000	38 800
Area clear felled - radiata pine (ha)	36 200	34 300
Volume clear felled - all species (TRVIB3, 000 m3)	17 580	17 862
Volume clear felled - radiata pine (TRVIB, 000 m3)	16 725	16 671
Volume production thinned - all species (TRVIB, 000 m3)	719	410
Total volume removed - all species (TRVIB, 000 m3)	18 299	18 272
Average clear fell yield - all species (m3/ha)	450	460
Average clear fell yield - radiata pine (m3/ha)	462	486
Area-weighted average clear fell age for radiata pine (years)	27.9	28.2
Estimated planted forest roundwood removal (000 m3) <sup>4</sup>	19 234	18 962

**Notes**

1. Source: A National Exotic Forest Description as at 1 April 2005, Ministry of Agriculture and Forestry, 2006.
2. The method used to estimate new planting is described on page 6 of A National Exotic Forest Description as at 1 April 2006.
3. Total recoverable volume inside bark.
4. Source: Ministry of Agriculture and Forestry (July 2006) Forestry Production and Trade for the March 2006 Quarter. This is an indirect estimate based on the application of conversion factors to the various forestry products produced. It is included here as a comparison with the direct estimate of the total volume removed from the 2006 NEFD Survey.

Symbols: r revised

thinned. The volume of production thinning fell from 719,000 cubic metres in the year ended March 2005 to 410,000 cubic metres in the year ended March 2006.

### Harvesting

An estimated 18.3 million cubic metres of roundwood were harvested in the year ended 31 March 2006. Of this 17.9 million cubic metres came from clear felling 38,800 hectares of forest, and 0.4 million cubic metres from production thinning. Radiata pine made up 91 percent (16.7 million cubic metres) of the total harvest volume. Of this, 12 percent were sold as pruned logs, 66 percent as unpruned logs and 22 percent as pulp logs.

### Deforestation

In the 2006 NEFD survey forest owners reported that 12,900 hectares of forest clearfelled in the year ended 31 March 2006 would not be replanted. This area represented 33 percent of the area harvested during this period, and compares with historical estimates that only two to five percent of the harvested areas were not being replanted post harvesting. Deforestation of planted forests is a relatively new phenomenon and the NEFD survey has not been specifically designed to collect this information. The statistics should be considered indicative at this stage. Sensitivity over deforestation and the increased separation between forest ownership and land ownership has made it challenging to collect this information in a postal survey.

### New Planting

An estimated 6000 hectares of new forest were established in 2005. It is provisionally estimated that only

5000 hectares of new planting occurred during 2006. This is the lowest level of new planting reported since 1959. In comparison, new planting rates between 1992 and 1998 averaged 69,000 hectares per year, and the average new planting rate over the last 30 years has been 42,000 hectares per year.

### More information

The NEFD is produced by the Ministry of Agriculture and Forestry in partnership with the New Zealand Forest Owners' Association and the New Zealand Farm Forestry Association. The work is overseen by a joint industry/Government steering committee.

The latest issue of the NEFD provides a detailed description of New Zealand's planted production forests as at 1 April 2006 including a breakdown of the forest area by local authority, age, species, and tending regime. The report provides:

- an overview of New Zealand's planted forests;
- a description of survey methods, sources of information and details on the reliability of the data; and
- statistical tables that describe New Zealand's planted forests in detail.

MAF, FOA and the FFA wish to thank forest owners, managers and consultants who provided data in the 2006 NEFD survey.

Hard copies of *A National Exotic Forest Description as at 1 April 2006* are available free of charge by emailing [policy.publications@maf.govt.nz](mailto:policy.publications@maf.govt.nz) or by writing to Policy Publications, MAF Policy, PO Box 2526, Wellington.

It is also available on the MAF website at: <http://www.maf.govt.nz/mafnet/publications/nefd.html>

## Public Disclosures: Buying and Selling

### Andrew Caddie

The public registers of the Commerce Commission and Overseas Investment Office throw up some interesting tidbits as to buying/selling in our sector. Some forestry related items that caught my eye:

**1. Decision Number** 200710003

**Application Number** 200620045

**Date** 8 January 2007

**Offeror/Applicant** Juken New Zealand Limited

**Ultimate Applicant Beneficial**

**Ownership** 85 percent - Japan, Wood One Company Limited

13 percent - Japan, Nakamoto (Yusho)

2 percent - Japan, Nakamoto (Toshio)

**Offeree(s)/Seller(s)** MackIntosh (Brian George) and Cooper (Stanley William and Rita Marion) of New Zealand

**Details of Land Involved** 19.4323 hectares of freehold situated at Awapuni Road, Gisborne being CTs GS115/151, GS5D/27 and GS 5D/26 (Gisborne Registry).

**Regions Involved** Gisborne/Hawkes Bay

**Total Consideration** \$2,400,000

**2. Decision Number** 200710015

**Application Number** 200620088

**Date** 28 February 2007

**Offeror/Applicant** NZFIT Limited

**Ultimate Applicant Beneficial**

**Ownership** 100 percent - Australia, Australia Post Superannuation Scheme

**Offeree(s)/Seller(s)** Tenon Industries Limited

**Details of Land Involved** 82 hectares of leasehold situated at State Highway 30, Murupara being part Ponaua Block.

**Regions Involved** Bay of Plenty/Coromandel

**Total Consideration** \$720,000

**3. Decision Number** 200710018

**Application Number** 200620108

**Date** 12 March 2007

**Offeror/Applicant** Blakely Pacific Limited

**Ultimate Applicant Beneficial**

**Ownership** 100 percent - United States of America, Eddy Family

**Offeree(s)/Seller(s)** The New Zealand Redwood Company

**Details of Land Involved** 2,081.5006 hectares of freehold situated at Saddle Peak, Waihi Gorge Road, Geraldine, Canterbury, being CT CB16F/652

**Regions Involved** Canterbury