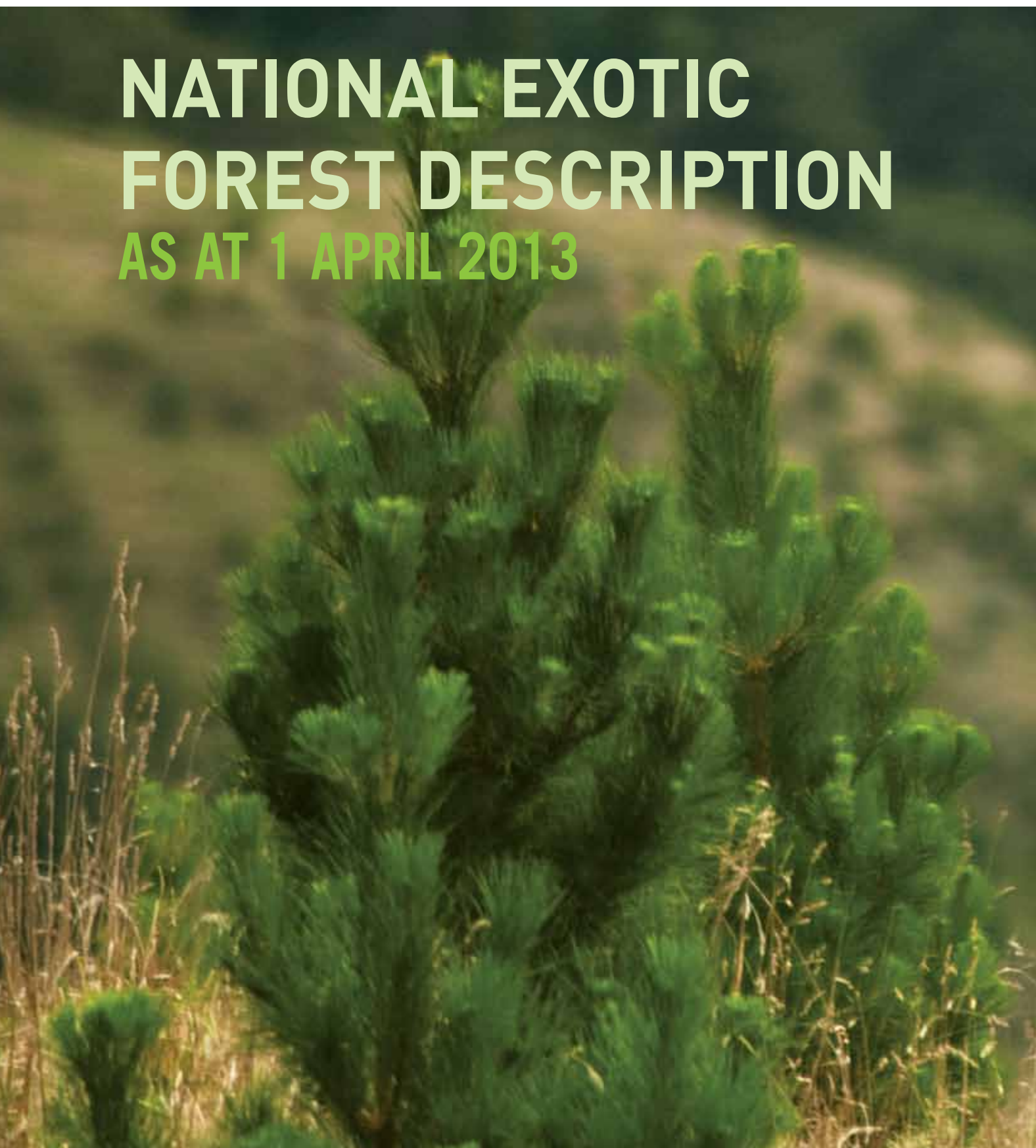


NATIONAL EXOTIC FOREST DESCRIPTION AS AT 1 APRIL 2013



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ENQUIRIES

Further copies can be obtained from www.mpi.govt.nz.

For more information see page 71 for contacts.

Published by the Ministry for Primary Industries

Pastoral House, 25 The Terrace

PO Box 2526

Wellington 6140

New Zealand

Tel: +64 4 894 0100 or 0800 00 83 33

Fax: + 64 4 894 0741

Web: www.mpi.govt.nz

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INTRODUCTION

1

This is the 30th edition of the *National Exotic Forest Description (NEFD)*. The report provides a detailed description of New Zealand's planted production forests as at 1 April 2013. It represents the net stocked area of the planted production forest estate; that is, all exotic forests planted with the primary intention of producing wood or wood fibre.

New Zealand's planted production forest description is published annually to assist with resource policy planning and development. It provides data for government policy advice, to meet a range of international reporting obligations and to assist with infrastructure planning decisions. The information is also a useful starting point for investigating wood processing opportunities in New Zealand.

The report provides:

- an overview of New Zealand's planted production forests;
- a description of survey methods, sources of information and details on the reliability of the data;
- statistical tables that describe New Zealand's planted production forest area in detail;
- forest activity data such as planting and harvesting statistics.

Much of this report's content consists of detailed tables that show the planted production forest area by age class and territorial authority. This information is provided for key species. For radiata pine, the area by age class tables are also provided by silviculture regime.

Collecting and publishing NEFD information is overseen by the NEFD Steering Committee – a forest industry committee with members nominated by the New Zealand Forest Owners Association and the Ministry for Primary Industries (see Appendix 5).

Each year the NEFD area dataset is compiled from a survey of forest owners and consultants who own or manage planted production forests. The yield tables are produced periodically based on data provided by forest owners and managers of larger forests.

An electronic copy of this report is available on the Ministry for Primary Industries website (www.mpi.govt.nz). The tables from this electronic report can be downloaded as Microsoft Excel files.

Please note this is a technical report aimed at those who have a working knowledge of New Zealand's planted production forests and who work in forestry related industries, government agencies and research organisations in New Zealand. For further clarification of the content of this report, please email stats_info@mpi.govt.nz.

OVERVIEW

2

KEY FACTS

- New Zealand's net stocked planted production forests covered an estimated 1.73 million hectares as at 1 April 2013.
- The total planted forest standing volume is estimated to be 512 million cubic metres with an average forest stand age (area weighted) of 16.8 years.
- As at 1 April 2013, New Zealand's net stocked forest area has increased by 7 700 hectares from 1 April 2012.
- Harvested areas awaiting either replanting or a land use decision decreased by 5 500 hectares in the year to 1 April 2013.
- Of the total forest area, the Central North Island wood supply region makes up 32 percent of the entire planted forest estate, comprising more planted forest than the entire South Island.
- The second and third largest areas of planted forest are in the Otago/Southland and Northland wood supply regions.

Table 2.1 (page 3) provides key national forestry statistics as at 1 April 2013 and compares these with statistics for 2012².

Sometimes harvested areas remain unstocked for up to three years before replanting occurs. Often these areas are not recorded year-to-year because the forest owners' tenancy ends at the completion of harvest and the land is returned to the land owners. The landowner or new tenant may not report the same areas in the NEFD survey until they are restocked. This makes it difficult to reconcile changes in forest area between years. The year-to-year change in total planting minus the areas of deforestation and harvesting reported in Table 2.1 is therefore not a reliable measure of the total forest area.

See figures 8.1 and 8.2 (pages 18–19) in this report for the location of New Zealand's planted forests as identified in the New Zealand Land Use Map 1990-2008 (LUM v010).

Figure 2.1 shows the age structure of the New Zealand planted forest estate. Radiata pine is typically harvested between 26 and 32 years old. The figure shows that the areas of forest planted in the mid 1980s have now reached harvest age. Also, the large areas of forest planted between 1992 and 1998, now 15 to 21 years old, are very apparent. These areas are expected to begin reaching harvest age from around 2018.

FIGURE 2.1: TOTAL ESTIMATED PLANTED PRODUCTION FOREST AREA BY AGE CLASS, AS AT 1 APRIL 2013¹



Note

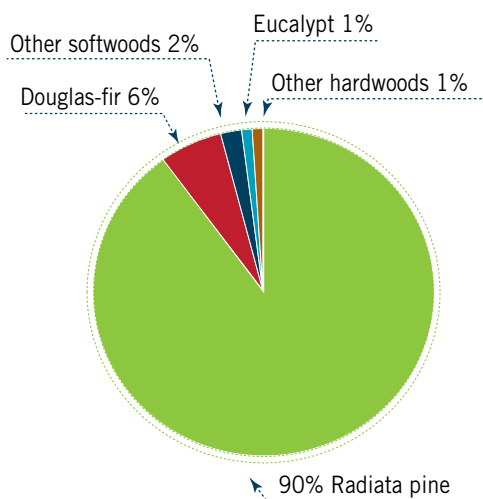
1. The area is shown for each age in single years up to 35 years. After this, age classes are aggregated.
2. The 2012 dataset has been updated since its publication. The revisions can be seen in Appendix 2.

TABLE 2.1: NATIONAL EXOTIC FOREST ESTATE STATISTICS

AREA AND STANDING VOLUME STATISTICS	AS AT 1 APRIL 2012 ¹	AS AT 1 APRIL 2013
FOREST AREA		
Net stocked area (ha)	1 720 840	1 728 500
Harvested area awaiting replanting (ha) ²	57 354	51 869
Total forest area	1 778 194	1 780 369
GROWTH CHARACTERISTICS		
Standing volume (000 m ³)	488 493	512 137
Average standing volume (m ³ /ha)	283	296
Area-weighted average age (years)	16.4	16.8
AREA BY SPECIES³		
Radiata pine (ha)	1 543 600	1 553 700
Douglas-fir (ha)	107 900	106 500
Cypress species (ha)	10 400	10 100
Other softwoods (ha)	23 700	23 600
Eucalyptus species (ha)	22 800	22 000
Other hardwoods (ha)	12 500	12 600
RADIATA PINE AREA BY TENDING REGIME		
Pruned with production thinning (ha)	206 500	203 300
Pruned without production thinning (ha)	692 100	687 200
Unpruned with production thinning (ha)	41 000	40 800
Unpruned without production thinning (ha)	603 900	622 300
PLANTING STATISTICS	YEAR ENDED 31 DECEMBER 2011	YEAR ENDED 31 DECEMBER 2012
NEW PLANTING⁴		
Total estimated new planting (ha) ⁵	12 000	11 500 ⁶
Restocking (ha)	44 388	45 154 ⁶
HARVESTING STATISTICS⁷	YEAR ENDED 31 MARCH 2012	YEAR ENDED 31 MARCH 2013
HARVESTING		
Area clear felled – all species (ha)	44 618	50 342 ⁶
Area clear felled – radiata pine (ha)	41 066	47 384 ⁶
Volume clear felled – all species (000 m ³)	23 567	26 296 ⁶
Volume production thinned – all species (000 m ³)	95	307 ⁶
Total volume removed – all species (000 m ³) ⁸	23 662	26 603 ⁶
Average clear fell yield – all species (m ³ /ha)	530	522 ⁶
Volume clear felled – radiata pine (000 m ³)	22 215	25 131 ⁶
Average clear fell yield – radiata pine (m ³ /ha)	559	530 ⁶
Area-weighted average clear fell age for radiata pine (years)	28.8	27.7

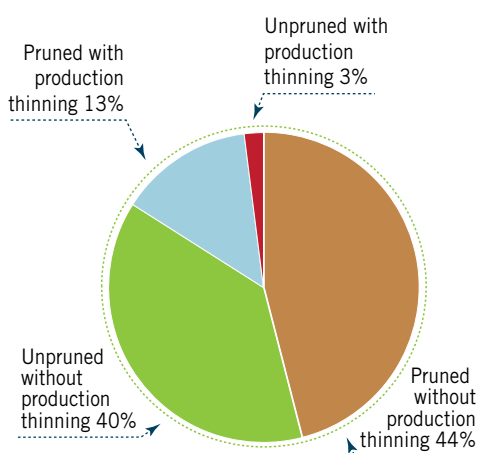
Notes

1. The 2012 National Exotic Forest Description reported figures have been revised due to the previously published dataset being updated. Revisions can be seen in Appendix 2.
2. In this report, the area of harvested land that was recorded as awaiting a land use decision has been reported in the area awaiting replanting.
3. Individual entries may not add to totals due to rounding. Breakdowns by Territorial Authority can be found in chapter 9.
4. The forestry statistics released in this report, and in particular, new planting estimates, may differ from those produced in the Agricultural Production Survey by Statistics New Zealand. These surveys use different survey frames and designs.
5. The method used to estimate new planting is described on page 7 of this report.
6. The 2013 survey only sought data from owners with 1000 hectares of forest or more. These estimates have been rated up based on the 2012 NEFD survey results for owners with less than 1000 hectares of forest.
7. All volumes are reported as recovered volumes inside bark.
8. These estimates are based on data collected in the 2012 and 2013 NEFD surveys and may differ from the roundwood removals estimate as published in the *Annual log and roundwood removal statistics*, Ministry for Primary Industries. This is due to the estimate from that source being an indirect estimate that uses conversion factors for each forestry product to estimate the total roundwood input that would be required to produce total forest product outputs.

FIGURE 2.2: SPECIES DISTRIBUTION – 2013¹**Note**

1. Other softwoods include cypress species.

FIGURE 2.3: RADIATA PINE BY TENDING REGIME – 2013

**SPECIES**

As seen in Figure 2.2, radiata pine is the dominant species, making up 90 percent of the planted production forest area. Newly planted areas of radiata pine were recorded in eastern and central parts of the North Island. In 2013, the total planted area of radiata pine increased by 10 100 hectares. Douglas-fir decreased in area by 1 400 hectares. All other species, with the exception of other hardwoods which saw a slight increase, showed minor decreases in area.

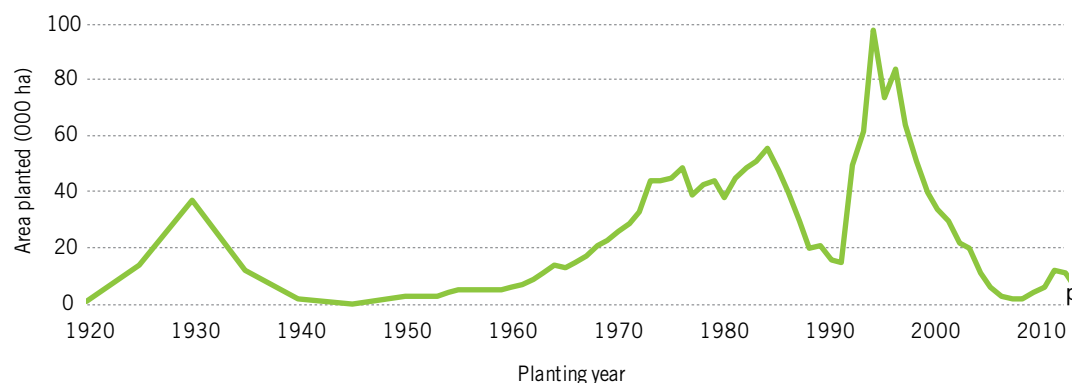
SILVICULTURE

Figure 2.3 indicates that about 57 percent (891 000 hectares) of the radiata pine planted forest estate is, or is expected to be, pruned to a height of at least four metres. This is a slight fall from the previous year, reflecting a general trend within the industry away from intensively managed pruned regimes.

- The area of production thinned forest remains at similar levels to last year at approximately 16 percent of the radiata pine planted forest.
- Generally, the area of production thinned forest has declined over the past decade.
- In the Central North Island region, production thinning of the radiata pine resource has decreased from 31 percent in 2003 to 22 percent in 2013.
- Both market demand for production thinnings and the current age structure of New Zealand forest resource to be thinned are likely to be factors in this decline.

FIRST ROTATION FOREST

Information collected in the 2013 survey indicates that 53 percent (917 000 ha) of the forest resource is first-rotation forest. Of the identified first-rotation forest, 48 percent is aged between 17 and 26 years. Owners with less than 1 000 hectares of total forest area account for 24 percent of this resource.

FIGURE 2.4: NEW FOREST PLANTING 1920–2013^{p 1}

p Provisional

Note

1. This provisional estimate is compiled from a combination of information collected in a supplementary phone survey of selected large forest owners and East Coast Forestry Project planting. The final estimate of new planting in the December 2013 year will be collected in the 2014 NEFD survey.

PLANTING

An estimated 11 500 hectares of new forest were established in 2012. Based on the results of the 2013 New Planting Survey it is provisionally estimated that 4 500 hectares of new forest were established during the 2013 calendar year.

was sold as pruned logs with unpruned logs making up the balance of 72 percent.

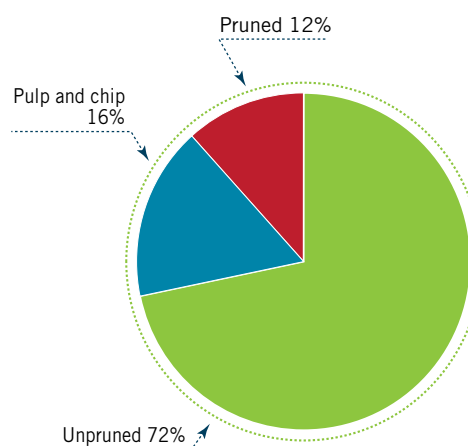
An estimated 45 200 hectares of previously clear felled planted forest were replanted in year ended December 2012, representing a 2 percent increase.

HARVESTING

An estimated harvesting volume of 26.3 million cubic metres¹ for the year ended March 2013 came from clear felling 50 342 hectares of planted forest, and 0.3 million cubic metres from production thinning.

While the total volume of wood harvested has increased; the average clear fell yield per hectare for radiata pine has decreased by 5 percent. Average age at harvest for radiata pine has decreased from 28.8 to 27.7 years.

Of the radiata pine harvest, the proportion of pulp and chip logs has remained constant at 19 percent. Approximately 12 percent of the remaining volume

FIGURE 2.5: RADIATA PINE HARVEST VOLUME BY LOG TYPE, YEAR ENDED 31 MARCH 2013

¹ These estimates are based on data collected in the 2013 NEFD survey and may differ from the roundwood removals estimate as published in the Annual log and roundwood removal statistics, Ministry for Primary Industries. This is due to the estimate from that source being an indirect estimate that uses conversion factors for each forestry product to estimate the total roundwood input that would be required to produce total forest product outputs.

DATA

COLLECTION AND ESTIMATION

3

In 2013, NEFD questionnaires were sent to all known forest owners and managers with at least 1 000 hectares of planted production forest. The questionnaire used is shown in Appendix 3. For the 2013 NEFD survey, 99 questionnaires were mailed out. A response rate of 97 percent was achieved.

For those owners with less than 1 000 hectares of forest, information supplied in the 2012 survey was imputed in the 2013 dataset. This means that any area that has been harvested since an owner last supplied data will not be captured and recorded, possibly leading to a small over statement of area in the older age classes. Conversely, any areas replanted after harvesting since their last survey return will be understated in the 2013 NEFD dataset.

In addition to the data collected in the NEFD surveys, the results from the 2004 AgriQuality (nowASUREQuality) Small Forest Grower Surveys continue to be used in the 2013 NEFD dataset. Details on the methods used by AgriQuality are available in the *Small Forest Grower Survey Report* (AgriQuality NZ, 2005).

The figures released in the *NEFD*, and in particular, new planting estimates, differ from those produced from the Agricultural Production Survey collected by Statistics New Zealand. These surveys use different survey frames and survey designs and have different survey objectives. The target population for the 2013 NEFD survey was all known forest owners and managers with at least 1000 hectares of planted production forest. The target population for the

TABLE 3.1: COMPARISON OF TOTAL NEW PLANTING WITH NEW PLANTING COLLECTED IN POSTAL SURVEYS

CALENDAR YEAR OF PLANTING	TOTAL NEW PLANTING ¹ (HA)	NEW PLANTING COLLECTED IN POSTAL SURVEYS ² (HA)	NEW PLANTING ADJUSTMENTS ³ (HA)
1992	50 200	30 900	19 300
1993	61 600	40 400	21 200
1994	98 200	68 400	29 800
1995	73 900	56 200	17 700
1996	83 600	64 600	19 000
1997	63 700	45 600	18 100
1998	51 200	36 300	14 900
1999	40 000	23 700	16 300
2000	33 600	24 700	8 900
2001	30 100	17 100	13 000
2002	22 100	14 300	7 800
2003	19 900	11 800	8 100
2004	10 600	6 200	4 400
2005	6 000	2 900	3 100
2006	2 600	1 500	1 100
2007	2 400	2 400	-
2008	1 900	1 900	-
2009	4 300	4 300	-
2010	6 000	6 000	-
2011	12 000	12 000	-
2012	11 500	11 500	-

Notes

1. As estimated from the planting and nursery surveys undertaken by the Ministry for Primary Industries.
2. The area of new planting as collected in postal surveys. This does not include the area of restocking.
3. The difference between total new planting and new planting collected in postal surveys.

2013 Agricultural Production Survey was all businesses engaged in “agricultural production activity” (including livestock, cropping, horticulture, and forestry) or owned land that was intended for agricultural activity. Detailed information on the population frame for the 2013 Agricultural Production Survey is available on the Statistics New Zealand website¹.

The forest areas released in the *NEFD* may also differ from those produced in the New Zealand Land Use Map 1990-2008 (LUM v010). The *NEFD* reports net stocked area of planted production forest while the New Zealand Land Use Map reports gross forest area including areas that are not intended for timber production.

NEW PLANTING IMPUTATION

For the calendar years 1992 to 2006 additional new planting areas not directly captured in the *NEFD* surveys were estimated (imputed) based on the annual nursery survey. The methodology used to estimate this “missing” new planting is described in Appendix 4. No additional new planting has been added since the 2006 calendar year. Table 3.1 shows the comparisons of the new planting figures collected in the postal surveys to the total new planting figures.



¹ http://www.stats.govt.nz/browse_for_stats/industry_sectors/agriculture-horticulture-forestry/info-releases.aspx

DATA DESCRIPTION

4

AREA DATA

The base unit for collecting and recording area data is the crop type. Up to ten crop types are recognised for each territorial authority, made up of four tending regimes for radiata pine, two tending regimes for Douglas-fir, and one each for cypress species, eucalypt species, other softwoods and other hardwoods. For definitions of crop type and tending regime, see Appendix 1.

The area data in the NEFD dataset is organised as a net stocked area for each age by crop type, and is labelled with a crop type code and a yield table code.

The area data is rounded to the nearest hectare and is recorded for ages one to 80 years.

The crop type code defines the territorial authority, the species group and the tending regime. The crop type is referenced to a specific table in the yield table database through the yield table code. This cross-reference is used to prepare composite datasets to calculate estimates of standing volumes and for providing input data for national and regional wood availability forecasts.

YIELD TABLES

The yield tables contain yield aggregates of the same species group and tending regime which are located in the same wood supply region. The yield tables contain the total standing volume, total recoverable volume and three log type volumes (pruned logs, unpruned logs and pulp logs), together with any thinning volume, by annual age class. Each yield table is labelled with a code that defines the wood supply region, species group and tending regime.

PLANTING AND HARVESTING DATA

Data has been collected on the area of restocking, new planting and land cover before the establishment of forests. In addition, the NEFD survey collects data on harvesting, which includes the area clear felled, the volume clear felled and

the volume from production thinning for each year ended 31 March (see Table 2.1). The survey also collects data on the volume of clear felled radiata pine by generalised log types (pruned logs, unpruned logs and pulp/chip logs).

OTHER ATTRIBUTES

The NEFD dataset includes information on forest ownership, classified as:

- registered public company;
- privately owned;
- state-owned enterprise;
- local government body;
- central government;
- other forms of ownership.

Each year, the NEFD Steering Committee considers the inclusion of any other relevant attributes before requesting data from forest owners.

These breakdowns were not able to be published for the 2013 dataset due to technical difficulties.

NEW ZEALAND LAND USE MAP

The location of New Zealand's planted forests as identified in New Zealand Land Use Map 1990-2008 (LUM v010) is shown in Figures 8.1 and 8.2 in this report. Land Use Mapping is based on interpretation of satellite imagery and aerial photography. Further details about the New Zealand Land Use Map 1990-2008 (LUM v010) are available on the Ministry for the Environment website².

The Ministry for the Environment manages the New Zealand Land Use Map 1990-2008 (LUM v010).

² <http://www.mfe.govt.nz/issues/climate/lucas/data/land-use-mapping.html>

RELIABILITY

OF DATA

5

There are different levels of reliability associated with the net stocked area from each component of New Zealand's forest estate.

RELIABILITY OF DATA FROM LARGE-SCALE FOREST OWNERS

Large-scale forest owners (those with 1 000 hectares or more) own 75 percent of the national forest estate. There are approximately 100 forest owners with more than 1 000 hectares of forest.

Forest description data from large-scale owners is captured from an annual census. Data provided by these owners, and especially those with forests over 10 000 hectares, is considered the most reliable segment within the NEFD area dataset. Large-scale forest owners' forests are managed by professional staff and mapping work and forest inventories are conducted regularly in order to make well informed management decisions. The large-scale forest owners apply relatively consistent definitions of net stocked area.

RELIABILITY OF DATA FROM SMALLER SCALE OWNERS

Smaller scale forest owners with forests of less than 1 000 hectares made up 25 percent of the national forest estate in 2013. There are approximately 1 740 forest owners with between 40 hectares and 999 hectares of forest.

The quality of the data provided by owners with less than 1 000 hectares is likely to be more variable in nature. For instance:

- Some owners may report the total land area originally taken out of pasture and put into forest without mapping out unstocked gaps. The difference between "gross" forest area and "net stocked" area is generally of the order of 10 to 20 percent.
- It is likely to have a higher degree of non-sampling error as it is more likely to contain reporting inaccuracies and responses based on forest owners' estimates.
- It is also generally not reported electronically, which increases the possibility of errors in reporting the data to MPI and in recording the data in the database.

There is also the possibility that the survey frame contains inaccuracies, which may also contribute to non-sampling error. MPI adopts procedures to detect and minimise non-sampling error, but these errors may still occur and are not easy to quantify.

Table 5.1 shows total area represented from the 2013 NEFD survey and other NEFD data sources.

TABLE 5.1: TOTAL AREA REPRESENTED BY EACH DATA SOURCE IN THE 2013 NEFD DATABASE

DATA SOURCE	NET STOCKED AREA (000 HA)	PROPORTION OF TOTAL AREA (%)	NUMBER OF OWNERS AT NATIONAL LEVEL
DATA COLLECTED IN THE NEFD SURVEY			
NEFD survey 10 000ha+	1 023	59	24
NEFD survey 1000–9999ha	282	16	73
NEFD survey 40–999ha	215	12	1 740
NEFD survey total¹	1 520	87	1 837
New planting imputation (1992–2006) ²	203	10	..
2004 AgriQuality small forest growers(<40ha) ³	67	3	..
Total	1 729	100	..

Notes

1 Data collected from 2013 NEFD survey.

2 Adjustment made this year to the area of new forest planted between 1992 and 2006. New planting imputation is discussed on page 7 of this report.

3 *Small Forest Grower Survey Report*, AgriQuality New Zealand, April 2005.

Symbol

.. Not available.

RELIABILITY OF DATA BELOW NATIONAL LEVEL

Finer scale data, such as the area by age class at a territorial authority level, is likely to be less accurate than the total national forest area.

Forest areas are sometimes misallocated between adjacent territorial authorities. One way for users to minimise this problem is to aggregate data from adjacent territorial authorities, particularly where contiguous forest areas straddle territorial authority boundaries.

NEFD SURVEYS

To minimise possible errors in the NEFD survey data, the following checks were made.

- Numeric data was limited to certain maximum and minimum values for each entry.
- Aggregated area data was checked at the territorial authority level against the 2012 NEFD area dataset to ensure variation was within acceptable limits.
- For each owner, the data provided in the 2013 survey was compared with data provided by that owner in the previous surveys.

It is possible that some owners included in the dataset may change their management objectives. For instance, an area that is reported as intended to be pruned may not end up being pruned.

YIELD TABLES

The yield tables contained in the NEFD yield table dataset were produced during 1995/96, principally from data provided in 1995 by owners of extensive areas of forest. Data was collected from these

owners because their holdings covered most districts in New Zealand, they made up much of the forest resource and they had the most suitable yield data in New Zealand. For further details on the NEFD yield tables, refer to *NEFD Regional Yield Tables as at 1 April 1995*.

An updated set of NEFD yield tables was produced as part of the new regional wood availability forecasts. Wood availability forecasts were completed in all regions and updated yield tables were released in 2010. Analysis on the impact of the updated yield tables on standing volume time series is currently being undertaken. The standing volume figures in this report continue to be calculated using the yield tables compiled in 1995. It is expected that the 2014 NEFD will be reported using the more recent set of yield tables.

PLANTING AND HARVESTING ESTIMATES

6

NEW PLANTING AND REPLANTING ESTIMATES

The 2012 calendar year estimate of total planting is 56 700 hectares, representing a 0.5 percent increase on 2011. This is made up of 11 500 hectares of new planting and 45 200 hectares of replanting. The planting estimates are based on data collected from forest owners in the 2013 NEFD survey and include areas established as part of the East Coast Forestry Project.

Approximately 51 900 hectares of previously harvested forest was awaiting either replanting or a land use decision as at 1 April 2013. This is a decrease of over 5 500 hectares on the previous year. It is provisionally estimated that 4 500 hectares of new planting occurred during the 2013 calendar year.

Table 6.1 shows in percentage terms the predominant land cover prior to planting since 1993.

The estimates of land cover prior to new planting are based solely on the new planting information collected in postal surveys (see Table 3.1). In some instances, postal survey respondents who had undertaken new planting did not state the land cover type prior to planting. While the sample size used to derive the proportions of land cover type prior to new planting is considered to be adequate, the estimates are biased towards the practices of the larger forest owners who are fully represented in the NEFD surveys.

For definitions of these land cover types, refer to Appendix 1.

TABLE 6.1: LAND COVER PRIOR TO NEW PLANTING

CALENDAR YEARS	IMPROVED PASTURE (%)	UNIMPROVED PASTURE (%)	OTHER WOODY VEGETATION (%)	AREA OF NEW PLANTING (HA)
1993	28	56	16	61 600
1994	49	35	16	98 200
1995	67	22	11	73 900
1996	36	50	14	83 600
1997	43	46	11	63 700
1998	44	47	9	51 200
1999	56	30	14	40 000
2000	52	31	17	33 600
2001	68	9	23	30 100
2002	31	49	20	22 100
2003	28	46	26	19 900
2004	18	46	36	10 600
2005	2	19	79	6 000
2006	2	35	63	2 600
2007	11	9	80	2 400
2008	57	2	41	1 900
2009	27	58	15	4 300
2010	64	29	6	6 000
2011	41	54	5	12 000
2012	61	32	7	11 500

Note

Due to the small area of new planting in recent years and the influence of a small number of forest owners undertaking new planting, proportions of land cover types prior to planting may differ markedly between years.

HARVESTING DATA

The 2013 NEFD survey respondents recorded a harvest volume for the year ended 31 March 2013 of 26.6 million cubic metres. It is estimated that 26.3 million cubic metres came from clear felling 50 300 hectares of planted forest, and 0.3 million cubic metres from production thinning.

The total volume of radiata pine harvested in the year ended 31 March 2013 was 25.1 million cubic metres, from clear felling 47 400 hectares of forest. The area-weighted average clear fell age of radiata pine has decreased from 28.8 years to 27.7 years in the year ended 31 March 2013.

Figure 6.1 and 6.2 show the harvesting area and volume since 1990.

WOOD AVAILABILITY FORECASTS

Wood availability forecasts for all regions and New Zealand are available on the MPI website³.

³ <http://www.mpi.govt.nz/news-resources/publications.aspx>

FIGURE 6.1: HISTORICAL HARVESTING AREA 1990–2013

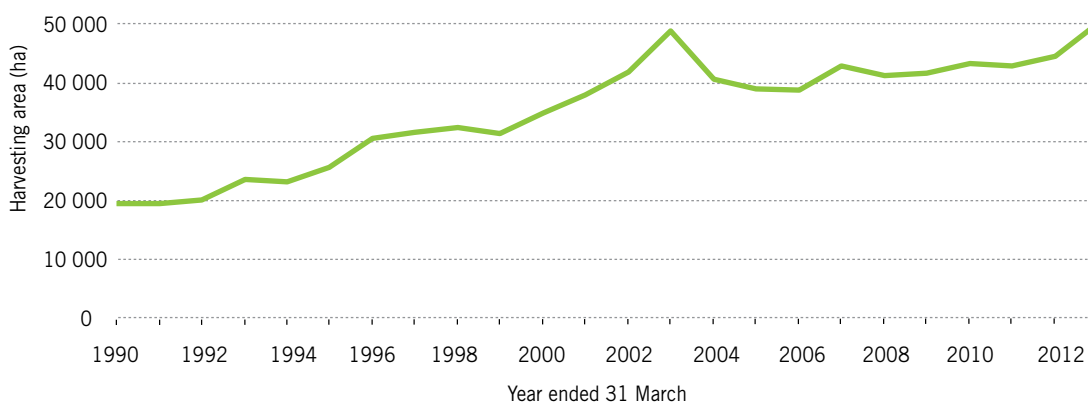


FIGURE 6.2: HISTORICAL HARVESTING VOLUME 1990–2013

WOOD SUPPLY

REGIONS AND TERRITORIAL AUTHORITIES

7

This report is based on 66 district and city councils in New Zealand. The councils are grouped to form 9 wood supply regions of broadly similar growth patterns for radiata pine, representing wood supply and processing catchments. The wood supply regions are: Northland, Central North Island, East Coast, Hawke's Bay, Southern North Island, Nelson and Marlborough, Canterbury, West Coast, and Otago and Southland.

TABLE 7.1: WOOD SUPPLY REGIONS AND CONSTITUENT TERRITORIAL AUTHORITIES

WOOD SUPPLY REGIONS	TERRITORIAL AUTHORITIES
NORTH ISLAND	
NORTHLAND	Far North District Whangarei District Kaipara District Auckland Council
CENTRAL NORTH ISLAND	Thames–Coromandel District Hauraki District Waikato District Matamata–Piako District Hamilton City Waipa District Otorohanga District Waitomo District Ruapehu District South Waikato District Taupo District Tauranga District Western Bay of Plenty District Rotorua District Kawerau District Whakatane District Opotiki District
EAST COAST	Gisborne District
HAWKE'S BAY	Wairoa District Hastings District Napier City Central Hawke's Bay District

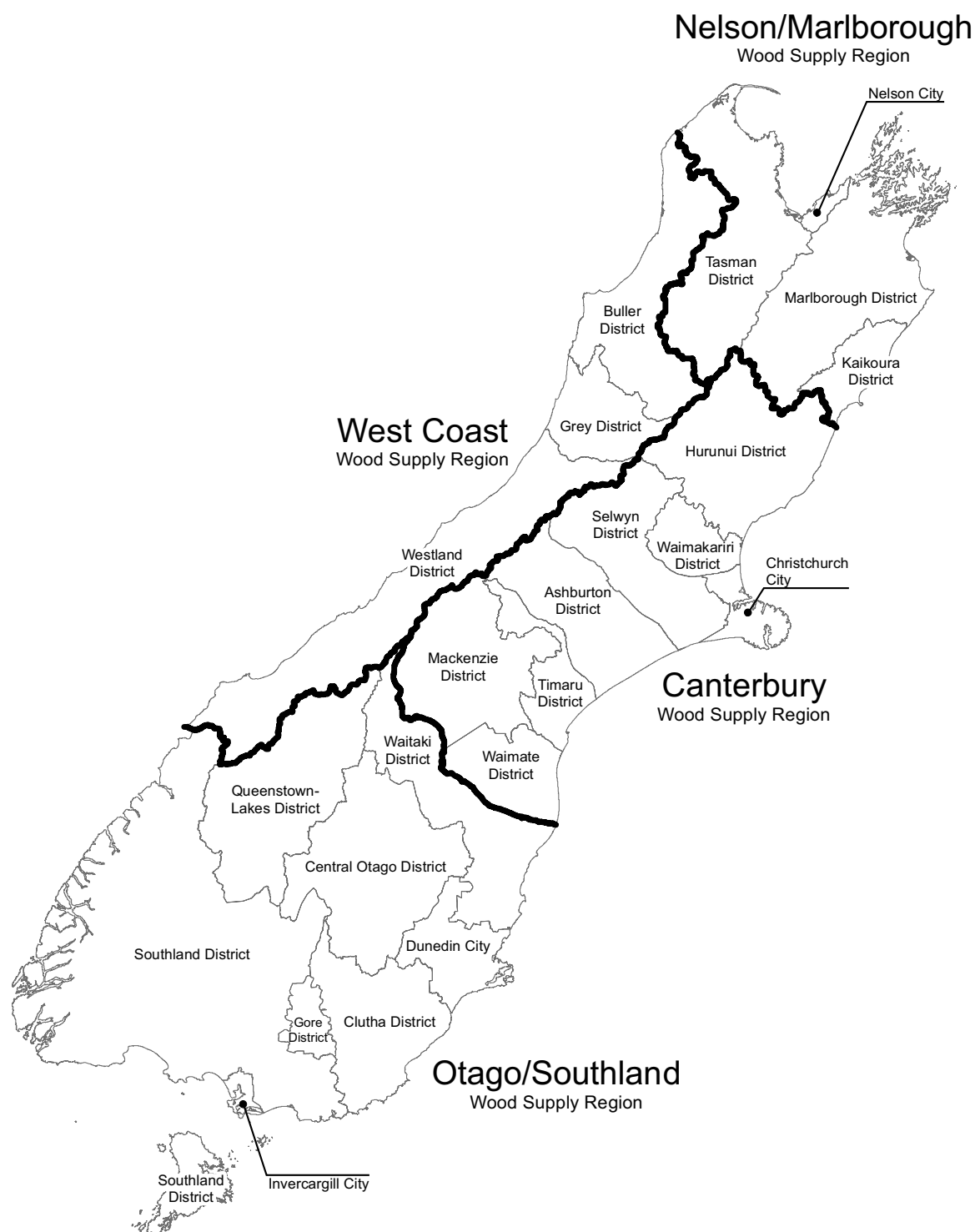
TABLE 7.1: CONTINUED

WOOD SUPPLY REGIONS	TERRITORIAL AUTHORITIES
SOUTHERN NORTH ISLAND	New Plymouth District Stratford District South Taranaki District Wanganui District Rangitikei District Manawatu District Palmerston North City Taranua District Masterton District Horowhenua District Carterton District South Wairarapa District Kapiti Coast District Upper Hutt City Porirua City Wellington City Lower Hutt City
SOUTH ISLAND	
NELSON AND MARLBOROUGH	Nelson City Tasman District Marlborough District Kaikoura District
WEST COAST	Buller District Grey District Westland District
CANTERBURY	Hurunui District Waimakariri District Christchurch City Selwyn District Ashburton District Timaru District Mackenzie District Waimate District
OTAGO AND SOUTHLAND	Waitaki District Dunedin City Queenstown-Lakes District Central Otago District Clutha District Gore District Southland District Invercargill City

FIGURE 7.1: NORTH ISLAND WOOD SUPPLY REGIONS SHOWING TERRITORIAL AUTHORITY BOUNDARIES



FIGURE 7.2: SOUTH ISLAND WOOD SUPPLY REGIONS SHOWING TERRITORIAL AUTHORITY BOUNDARIES



FOREST LOCATION

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FIGURE 8.1: DISTRIBUTION OF PLANTED FORESTS BY WOOD SUPPLY REGION – NORTH ISLAND, 2008

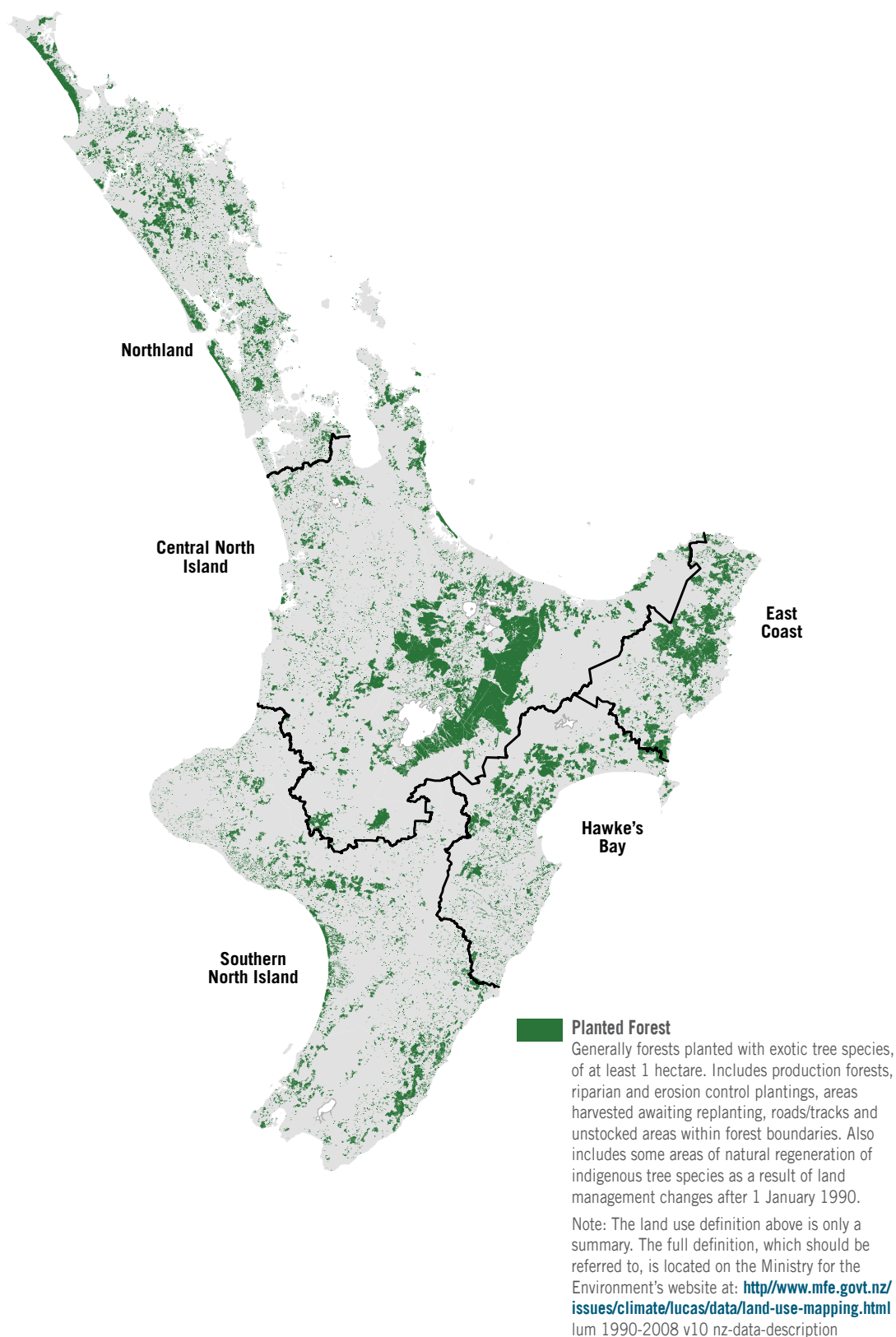
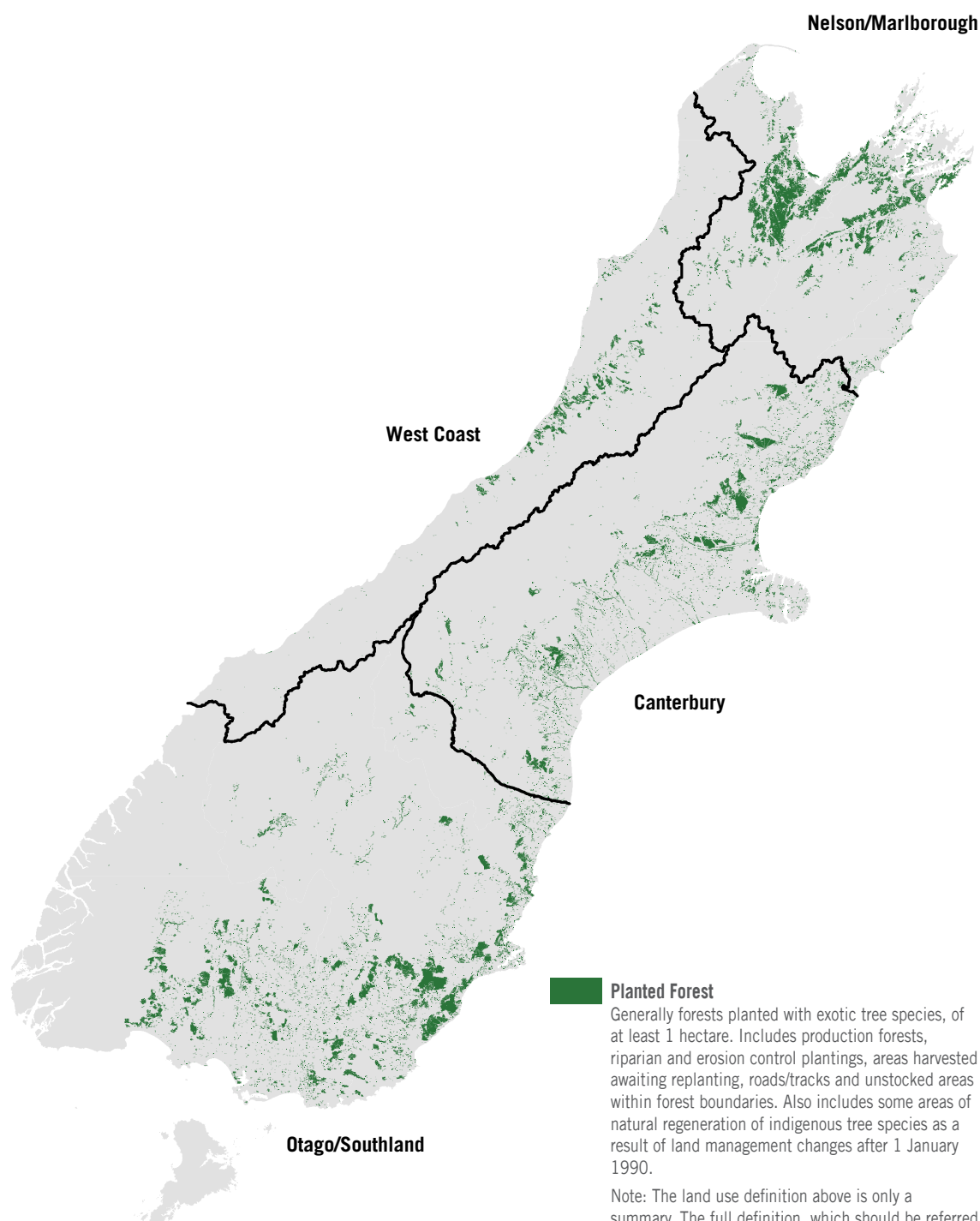


FIGURE 8.2: DISTRIBUTION OF PLANTED FORESTS BY WOOD SUPPLY REGION – SOUTH ISLAND, 2008



TABULAR SUMMARIES

AND GRAPHS

PLANTING, OWNERSHIP, NUMBER OF OWNERS AND STANDING VOLUME

TABLE 9.1: NEW LAND PLANTED IN PRODUCTION FOREST IN NEW ZEALAND¹

YEAR ENDED 31 DECEMBER	NEW LAND PLANTED (000 HA)	YEAR ENDED 31 DECEMBER	NEW LAND PLANTED (000 HA)	YEAR ENDED 31 DECEMBER	NEW LAND PLANTED (000 HA)
1920	1	1968	21	1992	50
1925	14	1969	23	1993	62
1930	37	1970	26	1994	98
1935	12	1971	29	1995	74
1940	2	1972	33	1996	84
1945	0	1973	44	1997	64
1950	3	1974	44	1998	51
1951	3	1975	45	1999	40
1952	3	1976	49	2000	34
1953	3	1977	39	2001	30
1954	4	1978	43	2002	22
1955	5	1979	44	2003	20
1956	5	1980	38	2004	11
1957	5	1981	45	2005	6
1958	5	1982	49	2006	3
1959	5	1983	51	2007	2
1960	6	1984	56	2008	2
1961	7	1985	48	2009	4
1962	9	1986	40	2010	6
1963	11	1987	30	2011	12
1964	14	1988	20	2012 ²	12 ^f
1965	13	1989	21	2013 ³	5 ^p
1966	15	1990	16		
1967	17	1991	15		

Sources

Until 1987, the statistics were compiled by the New Zealand Forest Service. The figures for 1988 to 1991 are estimates from NEFD surveys. The figures from 1992 onwards are based on nursery surveys undertaken by the Ministry of Forestry and the Ministry of Agriculture and Forestry.

Notes

1. Prior to 1950, only five-year average annual estimates are available. The areas of new planted forests have been estimated independently from total planted forest areas shown in Table 9.2.

2. This estimate is compiled from new planting reported in the 2013 NEFD survey and East Coast Forestry Project. In a separate survey – the 2012 Nursery Survey, it was estimated that 11 500 hectares of new planting occurred in the year ended December 2012. The new planting estimate released in the *National Exotic Forest Description* may differ from those produced in the Agricultural Production Survey by Statistics New Zealand. These surveys use different survey frames and designs.

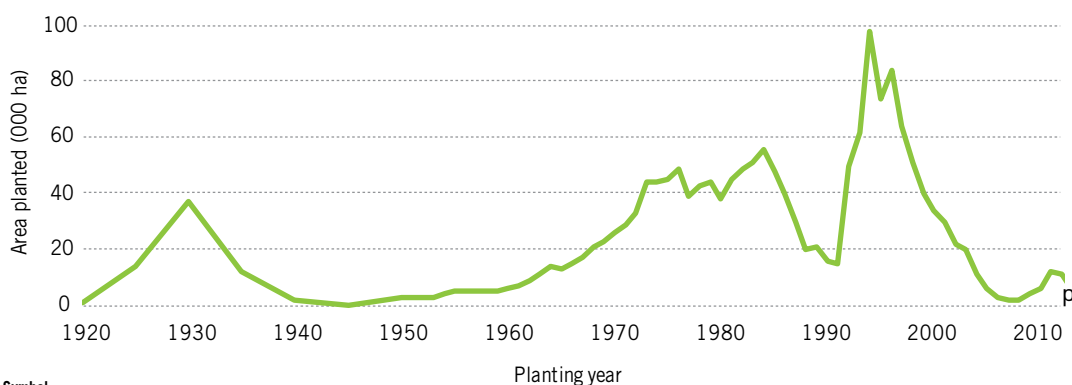
3. This provisional estimate is compiled from a combination of information collected in a supplementary phone survey of selected large forest owners and managers and East Coast Forestry Project.

Symbols

f Finalised.

p Provisional.

FIGURE 9.1: NEW LAND PLANTED IN PRODUCTION FOREST IN NEW ZEALAND¹



Symbol

p Provisional

Note

1. This provisional estimate is compiled from a combination of information collected in a supplementary phone survey of selected large forest owners and East Coast Forestry Project planting. The final estimate of new planting in the December 2013 year will be collected in the 2014 NEFD survey.

TABLE 9.2: FOREST AREA¹ BY ANNUAL AGE CLASS, AS AT 1 APRIL 2013

AGE	AREA (HA)	AGE	AREA (HA)	AGE	AREA (HA)
1	36 115	29	35 962	57	74
2	50 777	30	27 468	58	76
3	40 026	31	19 717	59	86
4	34 565	32	16 319	60	116
5	33 781	33	11 534	61	130
6	36 380	34	8 135	62	27
7	34 244	35	8 849	63	380
8	39 369	36	5 310	64	94
9	46 790	37	3 908	65	41
10	56 958	38	3 611	66	57
11	59 265	39	2 689	67	19
12	64 957	40	1 848	68	38
13	65 417	41	1 630	69	65
14	67 705	42	1 154	70	13
15	75 015	43	1 532	71	17
16	87 801	44	1 343	72	19
17	105 603	45	1 077	73	159
18	95 338	46	662	74	41
19	114 492	47	714	75	56
20	80 567	48	804	76	5
21	65 681	49	961	77	21
22	35 772	50	395	78	40
23	36 569	51	431	79	15
24	40 070	52	268	80+	672
25	33 675	53	645	New Zealand total	1 728 500
26	40 201	54	313		
27	47 644	55	170		
28	43 855	56	158		

Note

1. Net stocked planted production forest area.

FIGURE 9.2: FOREST AREA BY ANNUAL AGE CLASS¹**Note**

1. The area is shown for each age in single years up to 35 years. After this, age classes are aggregated.

TABLE 9.3: NUMBER OF FOREST OWNERS BY NATIONAL SIZE CLASS¹, AS AT APRIL 2013

WOOD SUPPLY REGION	NATIONAL SIZE CLASS					
	<40 HA	40–99 HA	100–499 HA	500–999 HA	1000–9999 HA	10 000+ HA
Northland	..	133	76	15	18	4
Central North Island	..	112	91	12	23	10
East Coast	..	53	49	7	15	7
Hawke's Bay	..	61	40	5	8	9
Southern North Island	..	219	166	16	16	7
Nelson and Marlborough	..	177	114	11	13	3
West Coast	..	7	4	1	1	2
Canterbury	..	83	77	6	10	3
Otago and Southland	..	145	83	6	12	7
New Zealand total²	..	984	685	71	73	24

Notes

1. This table shows the size class of the forest owner at a national level and the regions where the owner has forests located. This does not show the size of the forest at regional level.
2. The New Zealand totals do not equal the sum of the wood supply regions because some owners have forests in more than one region. This is particularly the case for large owners in the 1000–9999 hectare and 10 000+ hectare size classes.

Symbol

.. Not available.

FIGURE 9.3: NUMBER OF FOREST OWNERS BY NATIONAL SIZE CLASS

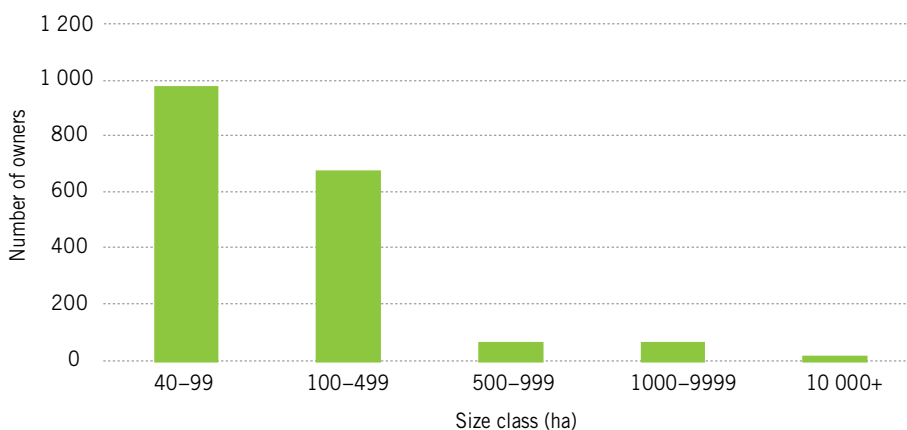


TABLE 9.4: FOREST AREA BY FOREST OWNER NATIONAL SIZE CLASS, AS AT 1 APRIL 2013

WOOD SUPPLY REGION	NATIONAL SIZE CLASS						TOTAL HA
	<40 HA	40–99 HA	100–499 HA	500–999 HA	1000–9999 HA	10 000+ HA	
Northland	42 143	8 330	15 519	11 173	67 175	56 856	201 196
Central North Island	50 205	6 737	19 220	10 767	80 173	386 854	553 956
East Coast	16 661	3 284	13 255	8 615	59 257	55 064	156 136
Hawke's Bay	21 682	3 820	9 597	6 969	26 601	63 066	131 735
Southern North Island	44 593	13 541	33 838	13 579	55 466	4 794	165 811
Nelson and Marlborough	24 508	10 875	22 143	10 179	33 609	68 857	170 171
West Coast	2 875	539	2 206	617	4 228	21 886	32 351
Canterbury	32 656	5 113	14 993	7 197	46 023	5 999	111 981
Otago and Southland	43 026	9 319	18 066	6 227	54 492	74 033	205 163
New Zealand total	278 349	61 558	148 837	75 323	427 024	737 409	1 728 500

FIGURE 9.4: FOREST AREA BY NATIONAL SIZE CLASS

TABLE 9.5: FOREST AREA¹ COLLECTED BY POSTAL SURVEY AND ADJUSTMENTS FOR NEW PLANTING, AS AT 1 APRIL 2013

TERRITORIAL AUTHORITY	COLLECTED BY POSTAL SURVEYS (HA) ²	IMPUTED NEW PLANTING 1992–2006 (HA) ³	ESTIMATED TOTAL AREA (HA)
NORTHLAND WOOD SUPPLY REGION			
Far North District	83 312	8 087	91 399
Whangarei District	28 076	3 704	31 780
Kaipara District	33 149	4 829	37 978
Auckland Council	33 794	6 245	40 039
Region total	178 331	22 865	201 196
CENTRAL NORTH ISLAND WOOD SUPPLY REGION			
Thames-Coromandel District	14 871	1 376	16 247
Hauraki District	2 486	907	3 393
Waikato District	16 628	2 294	18 922
Matamata-Piako District	1 024	354	1 378
Hamilton City	1	0	1
Waipa District	1 652	1 057	2 709
Otorohanga District	2 730	2 327	5 057
South Waikato District	61 255	1 579	66 754
Waitomo District	18 935	6 759	25 694
Taupo District	163 289	6 713	170 002
Tauranga District	71	39	110
Ruapehu District	40 024	8 359	48 383
Western Bay of Plenty District	20 627	3 089	23 716
Rotorua District	46 456	5 272	51 728
Kawerau District	31	3	34
Whakatane District	99 135	4 283	103 418
Opotiki District	14 162	2 248	16 410
Region total	503 377	46 659	553 956
EAST COAST WOOD SUPPLY REGION			
Gisborne District	141 618	14 518	156 136
Region total	141 618	14 518	156 136
HAWKE'S BAY WOOD SUPPLY REGION			
Wairoa District	49 834	5 561	55 395
Hastings District	54 486	5 930	60 416
Napier City	139	0	139
Central Hawke's Bay District	11 409	4 376	15 785
Region total	115 868	15 867	131 735
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION			
New Plymouth District	3 248	760	4 008
Stratford District	5 197	1 165	6 362
South Taranaki District	7 739	2 146	9 885
Wanganui District	24 775	3 584	28 359
Rangitikei District	19 237	3 593	22 830
Manawatu District	4 615	2 033	6 648
Palmerston North City	1 974	297	2 271
Horowhenua District	5 329	1 204	6 533
Tararua District	13 008	2 926	15 934
Kapiti Coast District	2 912	755	3 667
Upper Hutt City	4 376	646	5 022
Porirua City	1 335	54	1 389
Wellington City	536	38	574
Lower Hutt City	272	27	299
Masterton District	29 368	3 676	33 044
Carterton District	7 691	2 686	10 377
South Wairarapa District	6 417	2 192	8 609
Region total	138 029	27 782	165 811
North Island total	1 077 223	127 691	1 208 834

TABLE 9.5: CONTINUED...

TERRITORIAL AUTHORITY	COLLECTED BY POSTAL SURVEYS (HA) ²	IMPUTED NEW PLANTING 1992–2006 (HA) ³	ESTIMATED TOTAL AREA (HA)
NELSON AND MARLBOROUGH WOOD SUPPLY REGION			
Tasman District	81 267	5 706	86 973
Nelson City	8 343	532	8 875
Marlborough District	63 246	9 320	72 978
Kaikoura District	1 137	208	1 345
Region total	153 993	15 766	170 171
WEST COAST WOOD SUPPLY REGION			
Buller District	3 596	323	3 919
Grey District	13 479	296	13 775
Westland District	13 589	1 068	14 657
Region total	30 664	1 687	32 351
CANTERBURY WOOD SUPPLY REGION			
Hurunui District	36 997	6 312	44 390
Waimakariri District	11 456	3 118	14 574
Selwyn District	8 347	2 252	10 599
Christchurch City	6 802	3 638	10 440
Ashburton District	2 826	922	3 748
Mackenzie District	3 730	1 158	4 888
Timaru District	9 462	2 521	11 983
Waimate District	7 363	3 996	11 359
Region total	86 983	23 917	111 981
OTAGO AND SOUTHLAND WOOD SUPPLY REGION			
Waitaki District	14 726	3 884	18 610
Queenstown-Lakes District	627	130	757
Central Otago District	5 332	1 771	7 103
Dunedin City	13 361	1 374	14 735
Clutha District	70 420	11 741	82 161
Southland District	64 001	12 870	76 871
Gore District	2 428	1 810	4 238
Invercargill City	589	99	688
Region total	171 484	33 679	205 163
South Island total	443 124	75 049	519 666
New Zealand total	1 520 347	202 740	1 728 500

Notes

1. Net stocked planted production forest area.
2. Comprises the combined results from the 2013 NEFD survey and a small forest grower survey conducted by AgriQuality.
3. Adjustments made to the area of new forest planted between 1992 and 2006. New planting imputation is discussed on page 7.

FIGURE 9.5: TOTAL FOREST AREA BY WOOD SUPPLY REGION

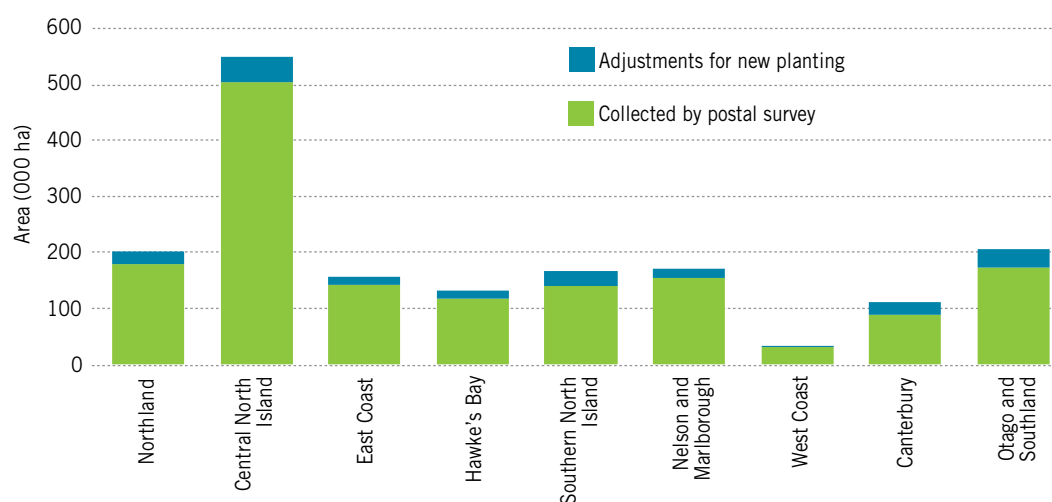


TABLE 9.6: AREA¹, STANDING VOLUME AND AREA-WEIGHTED AVERAGE AGE BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

TERRITORIAL AUTHORITY	AREA (HA)	STANDING VOLUME (000 M ³)	AREA-WEIGHTED AVERAGE AGE (YEARS)
NORTHLAND WOOD SUPPLY REGION			
Far North District	91 399	33 877	18.17
Whangarei District	31 780	12 681	18.27
Kaipara District	37 978	15 668	18.80
Auckland Council	40 039	12 442	15.92
Region total	201 196	74 669	17.86
CENTRAL NORTH ISLAND WOOD SUPPLY REGION			
Thames-Coromandel District	16 247	4 962	14.98
Hauraki District	3 393	1 108	17.33
Waikato District	18 922	5 854	15.97
Matamata-Piako District	1 378	435	16.01
Hamilton City	1	1	31.00
Waipa District	2 709	906	17.08
Otorohanga District	5 057	1 718	17.99
South Waikato District	66 754	22 745	15.86
Waitomo District	25 694	6 890	15.14
Taupo District	170 002	55 057	16.58
Tauranga District	110	38	18.25
Ruapehu District	48 383	16 628	17.02
Western Bay of Plenty District	23 716	8 062	17.41
Rotorua District	51 728	14 768	15.38
Kawerau District	34	13	14.65
Whakatane District	103 418	31 266	16.10
Opotiki District	16 410	8 613	22.52
Region total	553 956	179 064	16.42
EAST COAST WOOD SUPPLY REGION			
Gisborne District	156 136	54 455	17.23
Region total	156 136	54 455	17.23
HAWKE'S BAY WOOD SUPPLY REGION			
Wairoa District	55 395	12 835	15.14
Hastings District	60 416	14 533	15.32
Napier City	139	63	23.39
Central Hawke's Bay District	15 785	4 622	17.52
Region total	131 735	32 053	15.51
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION			
New Plymouth District	4 008	1 331	18.10
Stratford District	6 362	2 721	21.09
South Taranaki District	9 885	3 777	18.98
Wanganui District	28 359	8 961	16.78
Rangitikei District	22 830	6 947	17.12
Manawatu District	6 648	2 529	19.12
Palmerston North City	2 271	901	18.19
Horowhenua District	6 533	2 110	17.84
Tararua District	15 934	5 225	16.78
Kapiti Coast District	3 667	1 591	20.35
Upper Hutt City	5 022	1 833	18.06
Porirua City	1 389	720	22.83
Wellington City	574	194	17.52
Lower Hutt City	299	176	26.65
Masterton District	33 044	12 441	18.49
Carterton District	10 377	3 482	17.22
South Wairarapa District	8 609	2 980	17.93
Region total	165 811	57 920	17.93
North Island total	1 208 834	398 161	16.87

TABLE 9.6: CONTINUED...

TERRITORIAL AUTHORITY	AREA (HA)	STANDING VOLUME (000 M ³)	AREA-WEIGHTED AVERAGE AGE (YEARS)
NELSON AND MARLBOROUGH WOOD SUPPLY REGION			
Tasman District	86 973	18 660	15.61
Nelson City	8 875	1 786	14.37
Marlborough District	72 978	18 851	17.64
Kaikoura District	1 345	397	19.73
Region total	170 171	39 694	16.45
WEST COAST WOOD SUPPLY REGION			
Buller District	3 919	715	16.12
Grey District	13 775	3 026	17.90
Westland District	14 657	2 050	15.65
Region total	32 351	5 790	16.67
CANTERBURY WOOD SUPPLY REGION			
Hurunui District	44 390	8 682	16.71
Waimakariri District	14 574	3 291	18.30
Selwyn District	10 599	2 585	20.24
Christchurch City	10 440	1 989	17.62
Ashburton District	3 748	779	18.92
Mackenzie District	4 888	984	20.49
Timaru District	11 983	2 172	17.98
Waimate District	11 359	1 994	17.52
Region total	111 981	22 477	17.79
OTAGO AND SOUTHLAND WOOD SUPPLY REGION			
Waitaki District	18 610	4 664	16.98
Queenstown-Lakes District	757	331	25.77
Central Otago District	7 103	1 859	20.76
Dunedin City	14 735	4 039	17.78
Clutha District	82 161	17 850	15.72
Southland District	76 871	15 929	15.77
Gore District	4 238	1 057	17.22
Invercargill City	688	287	23.78
Region total	205 163	46 016	16.27
South Island total	519 666	113 977	16.68
New Zealand total	1 728 500	512 137	16.82

Note

1. Net stocked planted production forest area.

FIGURE 9.6: STANDING VOLUME BY WOOD SUPPLY REGION

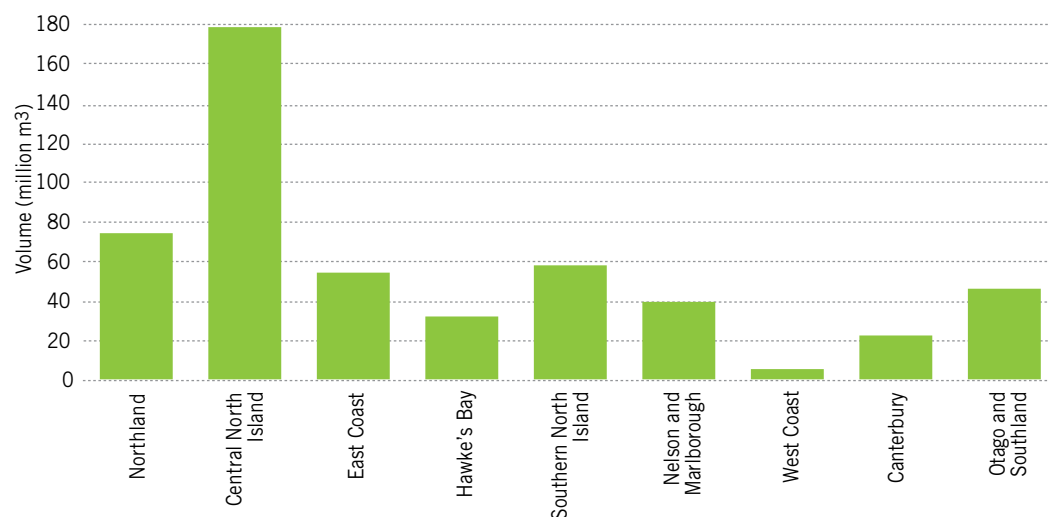


TABLE 9.7: FOREST AREA¹ BY AGE CLASS AND TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	13 057	11 329	10 896	19 609	7 944	20 613	6 036	1 455	407	14	39	91 399
Whangarei District	3 920	2 966	4 456	7 767	3 685	7 436	1 024	355	136	22	13	31 780
Kaipara District	2 678	3 105	4 227	12 123	6 397	8 577	578	148	113	8	24	37 978
Auckland Council	3 997	6 021	10 045	11 759	3 419	2 301	1 339	797	320	17	24	40 039
Region total	23 652	23 421	29 624	51 258	21 445	38 927	8 977	2 755	976	61	100	201 196
Central North Island Wood Supply Region												
Thames-Coromandel District	3 241	3 369	2 281	3 042	1 587	1 879	484	243	31	26	64	16 247
Hauraki District	290	138	670	1 303	851	68	55	11	1	0	6	3 393
Waikato District	1 864	1 832	5 177	5 981	2 963	497	333	80	33	70	92	18 922
Matamata-Piako District	197	305	149	262	269	72	109	11	1	0	3	1 378
Hamilton City	0	0	0	0	0	0	1	0	0	0	0	1
Waipa District	100	149	1 020	952	237	55	176	7	10	0	3	2 709
Otorohanga District	23	781	1 297	1 854	408	420	93	47	132	0	2	5 057
South Waikato District	5 648	11 238	15 100	13 300	14 405	6 315	502	62	52	4	128	66 754
Waitomo District	2 713	4 685	5 323	9 559	1 228	1 160	354	251	323	87	11	25 694
Taupo District	25 051	28 062	31 490	23 628	24 435	24 304	10 111	1 769	1 061	30	61	170 002
Tauranga District	0	9	17	61	17	0	6	0	0	0	0	110
Ruapehu District	6 442	2 310	9 011	18 098	4 229	5 400	2 355	366	84	1	87	48 383
Western Bay of Plenty District	1 981	2 425	4 428	6 564	5 733	2 051	381	28	26	77	22	23 716
Rotorua District	6 463	9 243	12 821	9 642	7 544	3 688	1 115	724	276	27	185	51 728
Kawerau District	0	0	20	14	0	0	0	0	0	0	0	34
Whakatane District	13 853	13 332	21 460	25 342	15 008	9 888	3 089	809	502	102	33	103 418
Opotiki District	1 391	889	1 740	916	1 986	7 265	2 137	86	0	0	0	16 410
Region total	69 257	78 767	112 004	120 518	80 900	63 062	21 301	4 494	2 532	424	697	553 956
East Coast Wood Supply Region												
Gisborne District	20 042	10 457	28 411	50 378	21 206	16 969	5 799	1 465	1 139	214	56	156 136
Region total	20 042	10 457	28 411	50 378	21 206	16 969	5 799	1 465	1 139	214	56	156 136
Hawke's Bay Wood Supply Region												
Wairoa District	8 319	7 793	8 189	22 803	1 895	5 042	933	229	107	43	42	55 395
Hastings District	7 587	9 480	10 782	19 051	7 368	5 002	733	247	97	60	9	60 416
Napier City	0	0	0	67	7	51	9	5	0	0	0	139
Central Hawke's Bay District	1 063	853	3 988	6 466	1 764	845	447	170	77	39	73	15 785
Region total	16 969	18 126	22 959	48 387	11 034	10 940	2 122	651	281	142	124	131 735
Southern North Island Wood Supply Region												
New Plymouth District	51	282	1 207	1 436	424	433	100	66	7	0	2	4 008
Stratford District	178	533	449	3 110	698	752	205	10	167	257	3	6 362
South Taranaki District	95	321	1 917	4 521	1 979	637	320	53	32	3	7	9 885
Wanganui District	2 436	3 093	4 677	11 130	3 665	2 911	252	62	117	0	16	28 359
Rangitikei District	1 237	1 547	5 192	10 978	2 008	794	466	235	252	104	17	22 830
Manawatu District	368	309	1 115	2 610	1 117	430	531	131	19	4	14	6 648
Palmerston North City	443	283	126	529	321	79	342	141	7	0	0	2 271
Horowhenua District	399	1 014	865	2 020	1 472	383	209	106	22	40	3	6 533
Tararua District	2 000	1 032	2 139	7 007	1 730	797	919	227	65	9	9	15 934
Kapiti Coast District	54	152	765	1 216	442	708	215	113	2	0	0	3 667
Upper Hutt City	650	614	828	1 054	660	655	369	98	36	C	C	5 022
Porirua City	C	18	C	275	636	236	48	69	3	0	0	1 389
Wellington City	C	0	C	330	111	27	2	0	0	0	0	574
Lower Hutt City	0	0	22	90	2	38	127	20	0	0	0	299
Masterton District	2 229	3 008	4 812	12 291	3 930	4 441	1 499	402	359	60	13	33 044
Carterton District	1 089	579	3 605	2 151	1 097	1 046	524	156	123	2	5	10 377
South Wairarapa District	431	606	2 080	2 686	1 691	575	307	150	61	C	C	8 609
Region total	11 730	13 391	29 937	63 434	21 983	14 942	6 435	2 039	1 272	528	120	165 811
North Island total	141 650	144 162	222 935	333 975	156 568	144 840	44 634	11 404	6 200	1 369	1 097	1 208 834

TABLE 9.7: CONTINUED...

TERRITORIAL AUTHORITY	AGE CLASS (YEARS)											
	1-5 YEARS (HA)	6-10 YEARS (HA)	11-15 YEARS (HA)	16-20 YEARS (HA)	21-25 YEARS (HA)	26-30 YEARS (HA)	31-35 YEARS (HA)	36-40 YEARS (HA)	41-50 YEARS (HA)	51-60 YEARS (HA)	61-80 YEARS (HA)	TOTAL (HA)
NELSON & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	13 770	15 031	14 050	20 323	11 620	7 321	3 216	1 008	452	75	107	86 973
Nelson City	2 095	1 381	1 474	2 043	806	489	357	161	36	23	10	8 875
Marlborough District	7 727	7 861	10 015	24 801	8 100	10 004	3 296	807	303	47	17	72 978
Kaikoura District	28	90	171	754	52	95	49	59	39	8	0	1 345
Region total	23 620	24 363	25 710	47 921	20 578	17 909	6 918	2 035	830	153	134	170 171
WEST COAST WOOD SUPPLY REGION												
Buller District	988	272	348	1 215	232	569	205	42	20	4	24	3 919
Grey District	1 396	3 016	2 605	2 083	592	1 991	1 308	207	467	109	1	13 775
Westland District	1 099	3 639	2 764	4 241	701	1 351	408	333	91	8	22	14 657
Region total	3 483	6 927	5 717	7 539	1 525	3 911	1 921	582	578	121	47	32 351
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	3 554	6 829	9 840	12 613	5 176	4 001	1 420	421	374	48	114	44 390
Waimakariri District	483	1 198	2 769	5 333	3 205	1 133	192	103	85	71	2	14 574
Selwyn District	774	533	1 319	3 205	2 282	1 510	418	303	182	36	37	10 599
Christchurch City	369	511	1 225	5 252	1 383	886	520	223	20	4	47	10 440
Ashburton District	421	370	607	1 068	321	584	99	136	70	43	29	3 748
Mackenzie District	299	370	900	1 836	429	289	244	121	283	83	34	4 888
Timaru District	620	1 836	2 805	2 896	1 513	1 362	453	233	169	54	42	11 983
Waimate District	841	771	1 547	5 633	747	1 147	537	29	38	51	18	11 359
Region total	7 361	12 418	21 012	37 836	15 056	10 912	3 883	1 569	1 221	390	323	111 981
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	1 054	1 195	6 145	5 868	1 495	2 090	507	145	53	44	14	18 610
Queenstown-Lakes District	3	3	67	155	138	225	124	6	9	20	7	757
Central Otago District	146	494	2 665	1 547	472	478	430	277	449	49	96	7 103
Dunedin City	3 256	822	1 279	2 943	2 220	3 151	663	206	115	14	66	14 735
Clutha District	8 228	13 082	20 821	21 984	7 461	6 720	2 892	448	302	118	105	82 161
Southland District	6 409	10 136	23 668	22 784	5 653	4 769	2 302	629	452	49	20	76 871
Gore District	54	91	2 266	1 070	502	39	147	8	56	5	0	4 238
Invercargill City	0	48	74	179	99	86	133	57	7	5	0	688
Region total	19 150	25 871	56 985	56 530	18 040	17 558	7 198	1 776	1 443	304	308	205 163
South Island total	53 614	69 579	109 424	149 826	55 199	50 290	19 920	5 962	4 072	968	812	519 666
New Zealand total	195 264	213 741	332 359	483 801	211 767	195 130	64 554	17 366	10 272	2 337	1 909	1 728 500

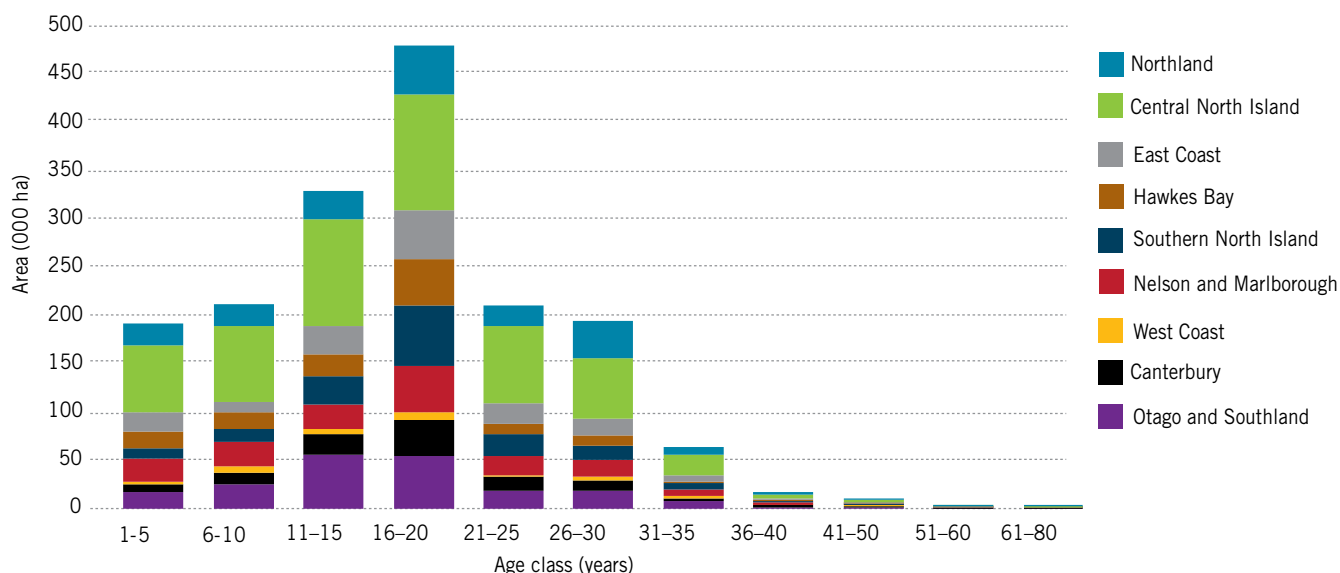
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.7: FOREST AREA BY AGE CLASS AND WOOD SUPPLY REGION





SPECIES

This section presents detailed information for each NEFD species group, showing the forest areas for each territorial authority by five-yearly age classes. Figure 9.10 provides an overview of this by illustrating the species composition by age class.

The following six tables provide information about the net stocked forest area planted in:

- Radiata pine;
- Douglas-fir;
- Cypress species;
- Other softwoods;
- Eucalypt species;
- Other hardwoods.

FIGURE 9.8: FOREST AREA BY AGE CLASS AND SPECIES, AS AT 1 APRIL 2013

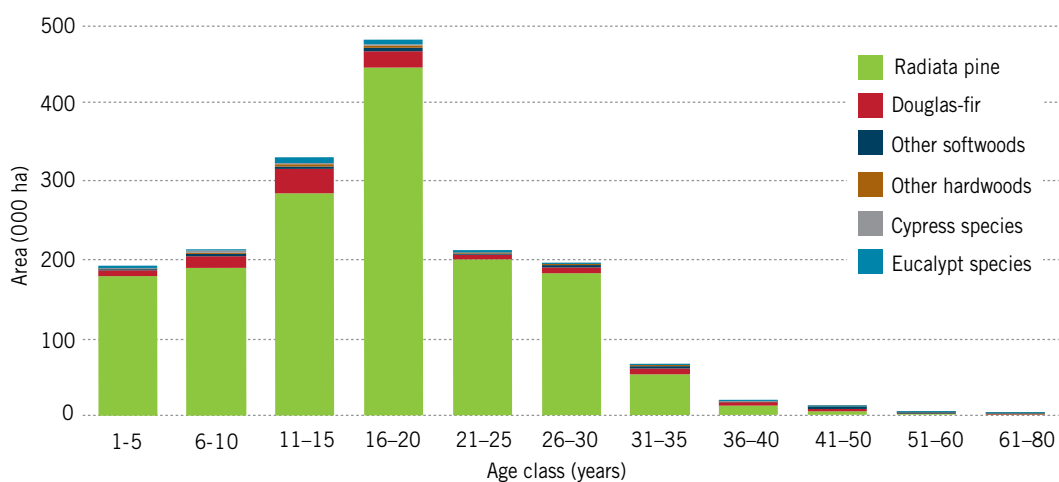


TABLE 9.8: AREA¹ PLANTED IN RADIATA PINE BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	13 042	10 913	10 122	19 210	7 851	20 382	5 886	1 409	350	6	0	89 171
Whangarei District	3 918	2 952	4 272	7 469	3 575	7 362	918	342	135	1	3	30 947
Kaipara District	2 678	2 844	3 887	11 787	6 324	8 555	552	139	90	7	6	36 869
Auckland Council	3 943	5 888	9 757	11 403	3 269	2 206	1 237	735	296	4	11	38 749
Region total	23 581	22 597	28 038	49 869	21 019	38 505	8 593	2 625	871	18	20	195 736
Central North Island Wood Supply Region												
Thames-Coromandel District	3 237	3 368	2 269	2 978	1 555	1 747	426	201	28	20	15	15 844
Hauraki District	290	122	647	1 282	851	68	54	11	1	0	0	3 326
Waikato District	1 859	1 830	5 034	5 939	2 932	464	331	80	17	66	47	18 599
Matamata-Piako District	197	302	126	251	255	71	104	11	1	0	0	1 318
Hamilton City	0	0	0	0	0	0	1	0	0	0	0	1
Waipa District	100	132	548	830	232	52	167	7	8	0	2	2 078
Otorohanga District	0	739	1 231	1 790	369	375	93	47	0	0	0	4 644
South Waikato District	5 226	10 589	14 665	13 224	14 045	6 213	479	31	28	0	94	64 594
Waitomo District	1 909	3 876	5 163	9 213	1 198	1 141	287	20	0	0	0	22 807
Taupo District	24 020	27 028	29 933	22 483	22 556	23 543	9 359	317	61	30	26	159 356
Tauranga District	0	7	12	57	16	0	5	0	0	0	0	97
Ruapehu District	6 318	2 269	8 624	17 776	4 215	5 386	2 260	335	1	0	0	47 184
Western Bay of Plenty District	1 916	2 307	4 116	6 369	5 664	1 962	341	15	4	0	3	22 697
Rotorua District	6 405	9 047	12 011	8 932	6 981	3 417	433	24	46	5	16	47 317
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	13 853	12 938	20 961	23 089	13 888	8 232	2 032	303	180	36	1	95 513
Opotiki District	1 391	888	1 722	908	1 980	7 255	2 133	86	0	0	0	16 363
Region total	66 721	75 442	107 062	115 121	76 737	59 926	18 505	1 488	375	157	204	521 738
East Coast Wood Supply Region												
Gisborne District	19 123	9 847	27 687	49 805	20 892	16 693	5 552	1 306	202	24	8	151 139
Region total	19 123	9 847	27 687	49 805	20 892	16 693	5 552	1 306	202	24	8	151 139
Hawke's Bay Wood Supply Region												
Wairoa District	8 067	7 650	7 792	22 744	1 895	5 004	881	196	14	5	0	54 248
Hastings District	7 022	9 382	10 682	18 835	7 331	4 859	675	223	59	24	3	59 095
Napier City	0	0	0	61	7	47	9	5	0	0	0	129
Central Hawke's Bay District	1 063	828	3 928	6 409	1 722	743	443	164	43	11	15	15 369
Region total	16 152	17 860	22 402	48 049	10 955	10 653	2 008	588	116	40	18	128 841
Southern North Island Wood Supply Region												
New Plymouth District	C	C	763	1 393	406	426	97	66	6	0	0	3 356
Stratford District	C	C	426	3 060	685	746	203	8	0	0	1	5 823
South Taranaki District	93	298	1 858	4 475	1 952	624	315	53	32	3	4	9 707
Wanganui District	2 411	2 926	4 539	11 033	3 652	2 903	238	47	54	0	9	27 812
Rangitikei District	951	1 162	4 955	10 810	1 940	761	429	219	169	47	0	21 443
Manawatu District	368	287	1 041	2 547	1 086	368	510	123	19	2	4	6 355
Palmerston North City	430	280	121	497	298	79	342	141	7	0	0	2 195
Horowhenua District	397	1 014	857	1 947	1 437	361	206	101	9	37	3	6 369
Tararua District	1 730	1 019	2 074	6 990	1 721	774	660	209	62	9	7	15 255
Kapiti Coast District	54	151	732	1 193	433	702	214	113	2	0	0	3 594
Upper Hutt City	650	612	821	1 043	644	608	323	98	28	C	C	4 870
Porirua City	C	18	C	269	636	234	48	69	3	0	0	1 381
Wellington City	C	0	C	330	111	27	2	0	0	0	0	574
Lower Hutt City	0	0	22	88	0	38	127	20	0	0	0	295
Masterton District	2 201	2 953	4 734	12 187	3 898	4 368	1 458	401	217	32	8	32 457
Carterton District	1 089	577	3 567	2 142	1 078	1 041	513	148	80	2	4	10 241
South Wairarapa District	431	597	2 072	2 649	1 578	546	226	96	61	C	C	8 273
Region total	11 070	12 592	28 720	62 653	21 555	14 606	5 911	1 912	749	161	71	160 000
North Island total	136 647	138 338	213 909	325 497	151 158	140 383	40 569	7 919	2 313	400	321	1 157 454

TABLE 9.8: CONTINUED...

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Nelson & Marlborough Wood Supply Region												
Tasman District	13 706	14 691	13 153	18 404	10 510	5 714	1 184	395	262	17	14	78 050
Nelson City	2 088	1 378	1 464	1 971	799	449	116	28	3	0	0	8 296
Marlborough District	7 691	7 646	9 500	24 223	7 991	9 223	2 420	685	263	27	2	69 671
Kaikoura District	23	82	153	744	52	95	47	41	1	2	0	1 240
Region total	23 508	23 797	24 270	45 342	19 352	15 481	3 767	1 149	529	46	16	157 257
West Coast Wood Supply Region												
Buller District	720	167	145	1 152	230	556	60	15	4	0	0	3 049
Grey District	1 240	2 730	2 266	2 035	574	1 820	1 038	125	148	2	0	11 978
Westland District	1 020	1 506	1 438	2 813	78	462	247	319	51	1	0	7 935
Region total	2 980	4 403	3 849	6 000	882	2 838	1 345	459	203	3	0	22 962
Canterbury Wood Supply Region												
Hurunui District	2 405	4 496	8 890	11 334	4 942	3 262	520	207	120	11	7	36 194
Waimakariri District	452	1 130	2 713	5 138	3 088	1 096	127	36	24	65	2	13 871
Selwyn District	774	506	1 095	2 662	1 818	1 267	367	284	48	C	C	8 831
Christchurch City	369	394	771	3 742	983	748	471	221	14	1	23	7 737
Ashburton District	398	309	438	877	247	452	73	91	36	5	16	2 942
Mackenzie District	150	103	284	1 289	192	98	91	32	119	C	C	2 360
Timaru District	290	418	639	2 465	1 396	1 050	127	25	24	1	1	6 436
Waimate District	762	554	798	3 214	653	932	350	20	19	34	5	7 341
Region total	5 600	7 910	15 628	30 721	13 319	8 905	2 126	916	404	121	62	85 712
Otago & Southland Wood Supply Region												
Waitaki District	896	1 004	3 824	4 326	1 399	1 885	381	129	45	34	7	13 930
Queenstown-Lakes District	0	0	15	46	24	23	101	0	4	20	7	240
Central Otago District	5	132	218	925	188	231	137	86	10	3	70	2 005
Dunedin City	3 188	804	1 027	2 691	2 026	2 663	204	99	28	14	1	12 745
Clutha District	5 206	8 592	13 343	17 272	6 618	4 692	1 753	274	66	15	4	57 835
Southland District	3 613	5 392	9 362	12 636	4 269	3 733	978	483	253	16	0	40 735
Gore District	6	26	611	907	407	37	144	8	37	1	0	2 184
Invercargill City	0	48	74	173	95	81	132	57	7	5	0	672
Region total	12 914	15 998	28 474	38 976	15 026	13 345	3 830	1 136	450	108	89	130 346
South Island total	45 002	52 108	72 221	121 039	48 579	40 569	11 068	3 660	1 586	278	167	396 277
New Zealand total	181 649	190 446	286 130	446 536	199 737	180 952	51 637	11 579	3 899	678	488	1 553 731

Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.9: AREA PLANTED IN RADIATA PINE BY WOOD SUPPLY REGION

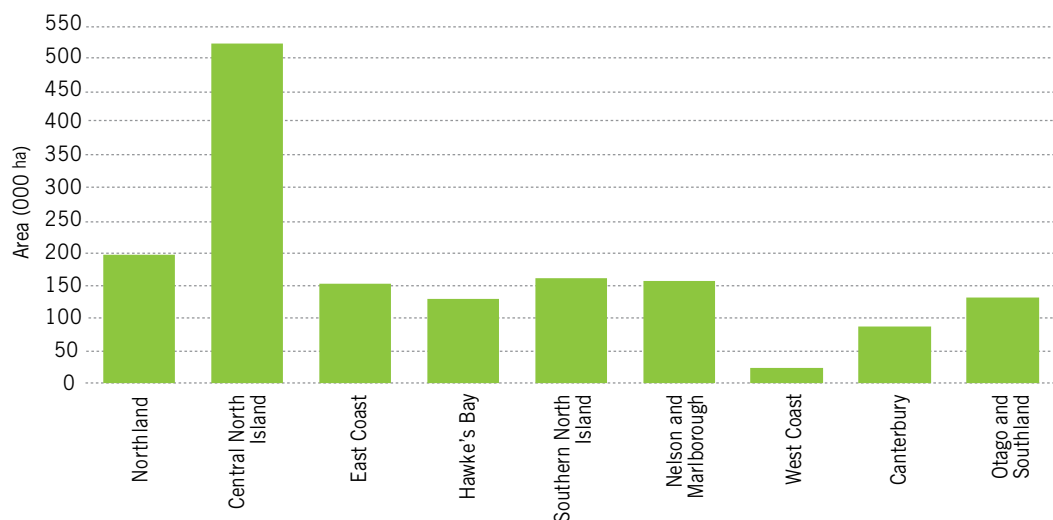


TABLE 9.9: AREA¹ PLANTED IN DOUGLAS-FIR BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

TERRITORIAL AUTHORITY	AGE CLASS (YEARS)											
	1-5 YEARS (HA)	6-10 YEARS (HA)	11-15 YEARS (HA)	16-20 YEARS (HA)	21-25 YEARS (HA)	26-30 YEARS (HA)	31-35 YEARS (HA)	36-40 YEARS (HA)	41-50 YEARS (HA)	51-60 YEARS (HA)	61-80 YEARS (HA)	TOTAL (HA)
NORTHLAND WOOD SUPPLY REGION												
Far North District	0	0	0	0	2	0	0	2	0	0	0	4
Whangarei District	0	0	0	0	0	0	0	0	0	0	0	0
Kaipara District	0	0	0	0	0	0	0	0	0	0	0	0
Auckland Council	0	0	0	6	0	0	0	0	0	0	0	6
Region total	0	0	0	6	2	0	0	2	0	0	0	10
CENTRAL NORTH ISLAND WOOD SUPPLY REGION												
Thames-Coromandel District	0	0	0	10	0	0	0	0	0	0	0	10
Hauraki District	0	0	0	0	0	0	0	0	0	0	0	0
Waikato District	0	0	0	1	0	1	0	0	0	0	0	2
Matamata-Piako District	0	0	4	0	0	0	0	0	0	0	0	4
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	1	2	0	0	0	0	0	0	0	3
Otorohanga District	23	32	50	29	3	0	0	0	129	0	0	266
South Waikato District	73	366	4	13	1	0	0	5	7	2	7	478
Waitomo District	718	806	117	247	24	5	2	227	286	79	3	2 514
Taupo District	60	811	1 209	164	1 616	621	706	1 358	731	0	9	7 285
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	123	24	225	127	1	1	12	21	71	0	1	606
Western Bay of Plenty District	35	0	8	7	1	0	3	8	22	2	0	86
Rotorua District	0	2	405	319	466	64	612	675	199	7	109	2 858
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	0	136	287	1 523	1 037	1 524	1 038	503	317	44	22	6 431
Opotiki District	0	0	0	0	0	0	0	0	0	0	0	0
Region total	1 032	2 177	2 310	2 442	3 149	2 216	2 373	2 797	1 762	134	151	20 543
EAST COAST WOOD SUPPLY REGION												
Gisborne District	68	448	509	366	0	1	3	C	482	C	0	1 903
Region total	68	448	509	366	0	1	3	C	482	C	0	1 903
HAWKE'S BAY WOOD SUPPLY REGION												
Wairoa District	0	3	37	1	0	0	0	2	64	13	4	124
Hastings District	0	C	8	134	C	41	11	C	22	C	0	248
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	C	6	3	C	0	1	C	7	C	2	56
Region total	0	21	51	138	22	41	12	C	93	C	6	428
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION												
New Plymouth District	0	0	0	0	0	0	0	0	0	0	0	0
Stratford District	0	0	2	0	0	0	0	1	167	257	0	427
South Taranaki District	0	0	0	0	0	0	1	0	0	0	0	1
Wanganui District	0	9	0	2	0	0	0	2	32	0	0	45
Rangitikei District	0	3	37	71	0	1	8	1	5	6	1	133
Manawatu District	0	1	6	0	2	8	0	3	0	0	0	20
Palmerston North City	1	0	0	0	0	0	0	0	0	0	0	1
Horowhenua District	0	0	0	0	1	0	0	0	13	0	0	14
Tararua District	0	3	20	0	0	1	0	10	0	0	0	34
Kapiti Coast District	0	0	3	0	0	0	0	0	0	0	0	3
Upper Hutt City	0	1	5	1	3	0	0	0	1	2	0	13
Porirua City	0	0	0	0	0	0	0	0	0	0	0	0
Wellington City	0	0	0	0	0	0	0	0	0	0	0	0
Lower Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Masterton District	0	0	8	12	0	0	5	0	93	14	4	136
Carterton District	0	0	24	0	1	0	0	0	1	0	0	26
South Wairarapa District	0	0	0	0	0	1	0	0	0	0	0	1
Region total	1	17	105	86	7	11	14	17	312	279	5	854
North Island total	1 101	2 663	2 975	3 038	3 180	2 269	2 402	2 821	2 649	478	162	23 738

TABLE 9.9: CONTINUED...

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Nelson & Marlborough Wood Supply Region												
Tasman District	60	147	743	1 569	978	1 285	1 590	432	127	29	11	6 971
Nelson City	7	3	4	55	0	40	175	112	30	C	C	436
Marlborough District	7	77	270	296	27	548	746	70	25	C	C	2 074
Kaikoura District	5	0	11	10	0	0	1	15	38	6	0	86
Region total	79	227	1 028	1 930	1 005	1 873	2 512	629	220	51	13	9 567
West Coast Wood Supply Region												
Buller District	268	104	197	20	0	2	40	2	2	4	0	639
Grey District	41	207	253	2	0	0	56	2	246	5	0	812
Westland District	0	0	6	8	0	0	13	0	11	0	0	38
Region total	309	311	456	30	0	2	109	4	259	9	0	1 489
Canterbury Wood Supply Region												
Hurunui District	495	1 111	805	1 206	187	383	454	178	40	1	11	4 871
Waimakariri District	31	47	38	23	10	7	36	55	61	5	0	313
Selwyn District	0	19	156	354	378	203	40	C	115	C	C	1 312
Christchurch City	0	0	168	58	4	58	19	0	3	0	0	310
Ashburton District	21	38	97	125	40	C	C	45	34	8	2	495
Mackenzie District	126	264	587	279	141	C	C	C	6	C	C	1 549
Timaru District	312	1 379	2 083	87	82	26	323	206	87	47	29	4 661
Waimate District	42	155	659	2 255	35	52	57	5	14	10	7	3 291
Region total	1 027	3 013	4 593	4 387	877	819	1 042	525	360	93	66	16 802
Otago & Southland Wood Supply Region												
Waitaki District	80	151	2 227	1 355	45	C	107	8	2	C	0	4 061
Queenstown-Lakes District	0	3	47	95	102	192	23	6	2	0	0	470
Central Otago District	19	297	2 269	181	43	107	67	45	44	9	0	3 081
Dunedin City	64	3	235	132	62	400	408	106	85	0	17	1 512
Clutha District	2 772	4 026	6 032	4 274	663	1 585	793	142	217	62	6	20 572
Southland District	1 294	3 847	10 425	6 554	115	C	866	30	168	C	0	24 035
Gore District	0	13	1 065	60	14	0	3	0	15	4	0	1 174
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	4 229	8 340	22 300	12 651	1 044	3 081	2 267	337	533	100	23	54 905
South Island total	5 644	11 891	28 377	18 998	2 926	5 775	5 930	1 495	1 372	253	102	82 763
New Zealand total	6 745	14 554	31 352	22 036	6 106	8 044	8 332	4 316	4 021	731	264	106 501

Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.10: AREA PLANTED IN DOUGLAS-FIR BY WOOD SUPPLY REGION

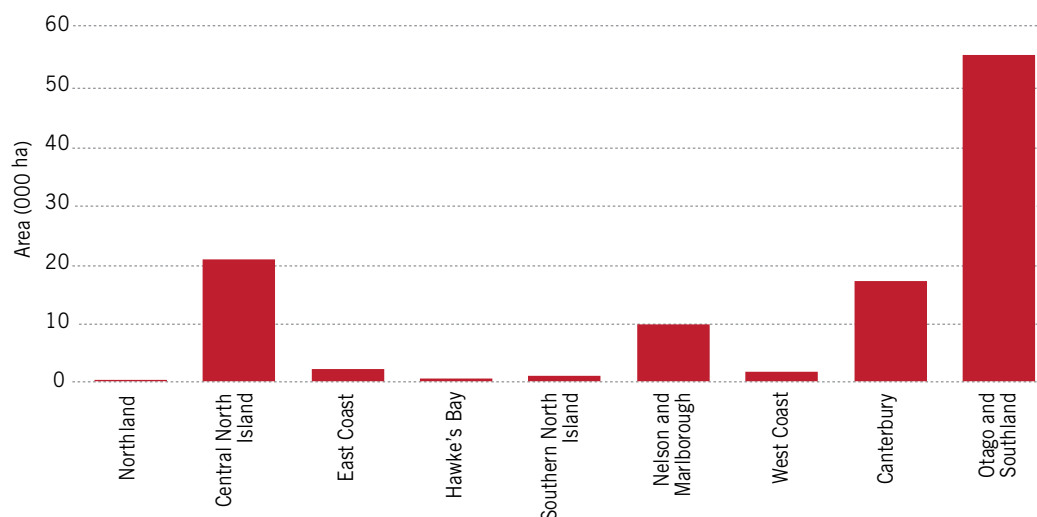


TABLE 9.10: AREA¹ PLANTED IN CYPRESS SPECIES BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	6	13	32	42	25	4	11	1	9	0	0	143
Whangarei District	0	0	9	12	3	0	2	0	0	0	0	26
Kaipara District	0	21	0	2	4	0	3	0	0	0	0	30
Auckland Council	17	45	34	47	49	1	0	4	1	0	0	198
Region total	23	79	75	103	81	5	16	5	10	0	0	397
Central North Island Wood Supply Region												
Thames-Coromandel District	4	0	1	2	23	93	19	0	0	0	0	142
Hauraki District	0	0	0	0	0	0	0	0	0	0	0	0
Waikato District	0	0	0	0	0	2	0	0	0	0	0	2
Matamata-Piako District	0	0	0	0	0	0	0	0	0	0	0	0
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	0	0	0	0	0	0	0	0	0	0
Otorohanga District	0	0	0	0	0	4	0	0	0	0	0	4
South Waikato District	0	2	0	10	9	3	0	0	0	0	0	24
Waitomo District	0	0	0	1	0	1	4	0	0	0	0	6
Taupo District	165	145	1	74	0	8	0	0	0	0	0	393
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	0	1	0	0	0	1	0	0	0	0	24	26
Western Bay of Plenty District	9	42	1	12	1	6	2	0	0	0	0	73
Rotorua District	0	123	21	9	6	34	4	0	0	0	1	198
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	0	78	7	65	0	64	0	0	0	0	0	214
Opotiki District	0	0	0	0	0	1	0	0	0	0	0	1
Region total	178	391	31	173	39	217	29	0	0	0	25	1 083
East Coast Wood Supply Region												
Gisborne District	5	26	83	31	23	25	12	26	28	0	4	263
Region total	5	26	83	31	23	25	12	26	28	0	4	263
Hawke's Bay Wood Supply Region												
Wairoa District	0	9	162	0	0	0	0	0	0	0	0	171
Hastings District	52	37	25	7	2	0	0	0	0	0	0	123
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	3	4	0	0	24	0	0	2	0	0	33
Region total	52	49	191	7	2	24	0	0	2	0	0	327
Southern North Island Wood Supply Region												
New Plymouth District	0	0	0	0	0	3	0	0	0	0	1	4
Stratford District	1	0	0	4	0	4	1	0	0	0	1	11
South Taranaki District	0	1	6	0	0	9	0	0	0	0	0	16
Wanganui District	23	C	0	C	0	8	1	3	10	0	0	142
Rangitikei District	3	23	4	11	4	14	12	12	70	7	0	160
Manawatu District	0	C	10	C	0	16	4	2	0	0	1	38
Palmerston North City	8	0	0	0	0	0	0	0	0	0	0	8
Horowhenua District	2	0	0	6	0	1	1	0	0	0	0	10
Tararua District	0	0	0	0	0	0	0	0	0	0	0	0
Kapiti Coast District	0	0	3	0	0	6	0	0	0	0	0	9
Upper Hutt City	0	0	1	0	2	0	0	0	0	0	0	3
Porirua City	0	0	0	0	0	0	0	0	0	0	0	0
Wellington City	0	0	0	0	0	0	0	0	0	0	0	0
Lower Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Masterton District	0	0	7	13	0	10	4	0	0	0	0	34
Carterton District	0	1	0	1	0	0	0	0	0	0	0	2
South Wairarapa District	0	2	0	0	2	0	2	0	0	0	0	6
Region total	37	122	31	42	8	71	25	17	80	7	3	443
North Island total	295	667	411	356	153	342	82	48	120	7	32	2 513

TABLE 9.10: CONTINUED...

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Nelson & Marlborough Wood Supply Region												
Tasman District	0	16	C	60	6	1	C	1	3	0	25	145
Nelson City	0	0	6	11	0	0	0	0	0	0	0	17
Marlborough District	9	43	62	26	16	17	2	1	0	0	5	181
Kaikoura District	0	8	0	0	0	0	0	0	0	0	0	8
Region total	9	67	C	97	22	18	C	2	3	0	30	351
West Coast Wood Supply Region												
Buller District	0	0	0	5	0	11	0	0	0	0	10	26
Grey District	41	34	76	31	10	81	40	0	0	12	1	326
Westland District	33	1 920	1 132	939	14	362	39	0	0	0	1	4 440
Region total	74	1 954	1 208	975	24	454	79	0	0	12	12	4 792
Canterbury Wood Supply Region												
Hurunui District	21	42	37	0	6	0	0	0	0	6	7	119
Waimakariri District	0	0	8	6	7	4	0	0	0	0	0	25
Selwyn District	0	0	5	5	2	0	0	0	0	0	0	12
Christchurch City	0	0	C	193	3	0	C	0	1	1	0	208
Ashburton District	0	2	15	0	8	0	0	0	0	0	0	25
Mackenzie District	0	1	0	16	6	0	0	0	0	0	0	23
Timaru District	0	0	24	12	0	5	0	0	0	0	0	41
Waimate District	0	14	7	6	14	0	0	0	0	0	0	41
Region total	21	59	C	238	46	9	C	0	1	7	7	494
Otago & Southland Wood Supply Region												
Waitaki District	C	7	15	3	0	C	0	0	0	0	4	44
Queenstown-Lakes District	0	0	0	0	0	0	0	0	0	0	0	0
Central Otago District	0	0	0	0	0	0	0	0	0	0	0	0
Dunedin City	0	12	8	57	52	2	0	0	0	0	0	131
Clutha District	191	360	420	172	65	142	5	0	1	4	6	1 366
Southland District	C	39	139	25	17	C	49	0	0	0	0	405
Gore District	0	0	14	0	0	0	0	0	0	0	0	14
Invercargill City	0	0	0	4	3	5	1	0	0	0	0	13
Region total	256	418	596	261	137	235	55	0	1	4	10	1 973
South Island total	360	2 498	2 002	1 571	229	716	145	2	5	23	59	7 610
New Zealand total	655	3 165	2 413	1 927	382	1 058	227	50	125	30	91	10 123

Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.11: AREA PLANTED IN CYPRESS SPECIES BY WOOD SUPPLY REGION

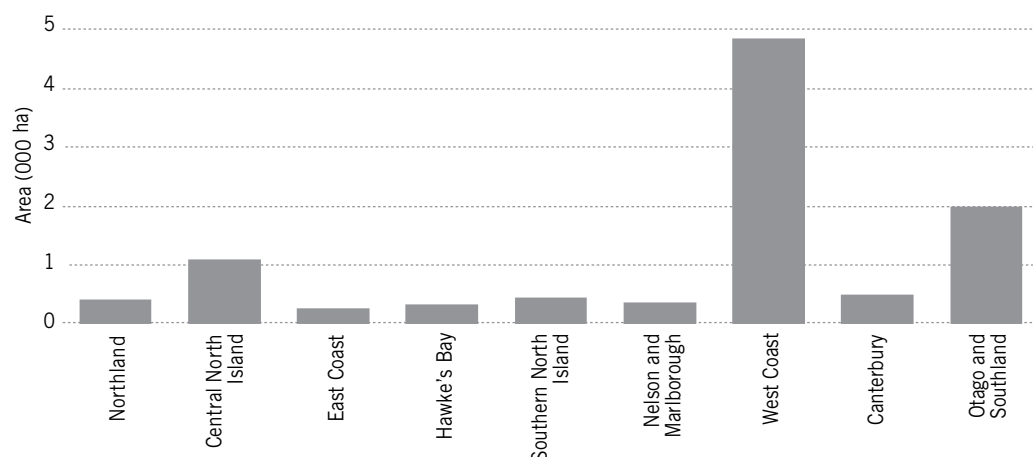


TABLE 9.11: AREA¹ PLANTED IN OTHER SOFTWOODS² BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	2	64	109	58	24	27	13	3	27	2	36	365
Whangarei District	2	11	59	100	4	10	1	3	0	21	7	218
Kaipara District	0	7	65	17	26	13	2	1	1	1	18	151
Auckland Council	8	45	54	67	9	10	13	17	10	3	4	240
Region total	12	127	287	242	63	60	29	24	38	27	65	974
Central North Island Wood Supply Region												
Thames-Coromandel District	0	1	7	17	6	3	2	3	3	0	46	88
Hauraki District	0	16	19	0	0	0	1	0	0	0	0	36
Waikato District	C	2	C	11	C	16	0	0	12	4	44	210
Matamata-Piako District	0	3	11	5	4	1	0	0	0	0	3	27
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	26	36	3	1	0	0	2	0	1	69
Otorohanga District	0	2	7	21	28	3	0	0	3	0	0	64
South Waikato District	0	0	0	0	6	24	1	26	9	0	27	93
Waitomo District	0	2	27	49	3	3	4	4	35	6	8	141
Taupo District	111	8	33	43	16	56	31	82	58	0	25	463
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	1	15	158	190	13	11	80	10	12	1	51	542
Western Bay of Plenty District	C	21	C	100	C	2	2	0	0	7	8	268
Rotorua District	58	21	112	84	46	62	56	11	11	14	40	515
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	0	6	4	35	14	23	10	1	5	20	10	128
Opotiki District	0	0	2	3	1	0	2	0	0	0	0	8
Region total	185	97	603	594	177	205	189	137	150	52	263	2 652
East Coast Wood Supply Region												
Gisborne District	57	85	75	98	23	21	144	78	418	159	6	1 164
Region total	57	85	75	98	23	21	144	78	418	159	6	1 164
Hawke's Bay Wood Supply Region												
Wairoa District	146	113	55	57	0	1	41	31	28	22	16	510
Hastings District	32	13	26	45	22	38	34	3	14	16	4	247
Napier City	0	0	0	0	0	2	0	0	0	0	0	2
Central Hawke's Bay District	0	14	36	16	16	12	0	0	16	15	49	174
Region total	178	140	117	118	38	53	75	34	58	53	69	933
Southern North Island Wood Supply Region												
New Plymouth District	C	C	420	21	14	0	2	0	1	0	0	589
Stratford District	C	C	9	11	1	1	0	1	0	0	0	34
South Taranaki District	0	19	32	28	15	2	0	0	0	0	3	99
Wanganui District	1	54	104	65	0	0	1	2	17	0	1	245
Rangitikei District	278	354	142	34	29	10	11	1	1	8	11	879
Manawatu District	0	17	38	27	9	14	2	3	0	2	8	120
Palmerston North City	4	0	0	0	1	0	0	0	0	0	0	5
Horowhenua District	0	0	7	20	9	1	0	3	0	1	0	41
Tararua District	0	6	25	8	1	10	258	1	0	0	2	311
Kapiti Coast District	0	1	15	8	5	0	0	0	0	0	0	29
Upper Hutt City	0	1	1	8	10	39	32	0	7	13	0	111
Porirua City	0	0	0	6	0	0	0	0	0	0	0	6
Wellington City	0	0	0	0	0	0	0	0	0	0	0	0
Lower Hutt City	0	0	0	2	2	0	0	0	0	0	0	4
Masterton District	17	45	44	54	30	41	20	1	44	13	1	310
Carterton District	0	0	14	6	8	3	1	0	42	0	0	74
South Wairarapa District	0	6	8	4	5	0	1	0	0	5	0	29
Region total	333	612	859	302	139	121	328	12	112	42	26	2 886
North Island total	765	1 061	1 941	1 354	440	460	765	285	776	333	429	8 609

TABLE 9.11: CONTINUED...

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Nelson & Marlborough Wood Supply Region												
Tasman District	3	175	102	172	58	185	258	44	37	6	46	1 086
Nelson City	0	0	0	2	0	0	36	16	3	C	C	78
Marlborough District	15	56	166	142	31	111	10	29	13	C	C	588
Kaikoura District	0	0	7	0	0	0	1	0	0	0	0	8
Region total	18	231	275	316	89	296	305	89	53	30	58	1 760
West Coast Wood Supply Region												
Buller District	0	1	2	33	0	0	103	21	14	0	6	180
Grey District	0	2	1	7	1	45	152	65	73	89	0	435
Westland District	0	55	140	91	1	7	32	6	29	7	21	389
Region total	0	58	143	131	2	52	287	92	116	96	27	1 004
Canterbury Wood Supply Region												
Hurunui District	633	1 177	75	42	25	340	446	36	213	30	89	3 106
Waimakariri District	0	21	9	93	60	11	29	12	0	1	0	236
Selwyn District	0	8	53	159	51	35	5	C	19	11	C	361
Christchurch City	0	13	49	757	274	56	7	2	2	2	6	1 168
Ashburton District	2	21	54	39	17	C	C	0	0	30	11	238
Mackenzie District	23	2	24	219	89	C	C	C	158	70	C	880
Timaru District	18	31	35	311	19	269	3	2	17	6	2	713
Waimate District	37	48	81	133	26	160	129	4	1	5	5	629
Region total	713	1 321	380	1 753	561	1 079	682	127	410	155	150	7 331
Otago & Southland Wood Supply Region												
Waitaki District	C	31	67	150	24	20	16	1	5	C	0	398
Queenstown-Lakes District	3	0	5	14	12	7	0	0	3	0	0	44
Central Otago District	79	65	171	410	205	124	221	129	392	37	25	1 858
Dunedin City	4	2	7	42	39	60	46	1	2	0	32	235
Clutha District	56	39	263	229	90	151	216	13	10	25	68	1 160
Southland District	C	49	111	150	89	69	347	112	16	C	16	1 026
Gore District	0	2	6	101	40	0	0	0	4	0	0	153
Invercargill City	0	0	0	2	1	0	0	0	0	0	0	3
Region total	277	188	630	1 098	500	431	846	256	432	78	141	4 877
South Island total	1 008	1 798	1 428	3 298	1 152	1 858	2 120	564	1 011	359	376	14 972
New Zealand total	1 773	2 859	3 369	4 652	1 592	2 318	2 885	849	1 787	692	805	23 581

Note

1. Net stocked planted production forest area.
2. Softwoods other than radiata pine, Douglas-fir and cypresses.

Symbol

C Confidential.

FIGURE 9.12: AREA PLANTED IN OTHER SOFTWOODS BY WOOD SUPPLY REGION

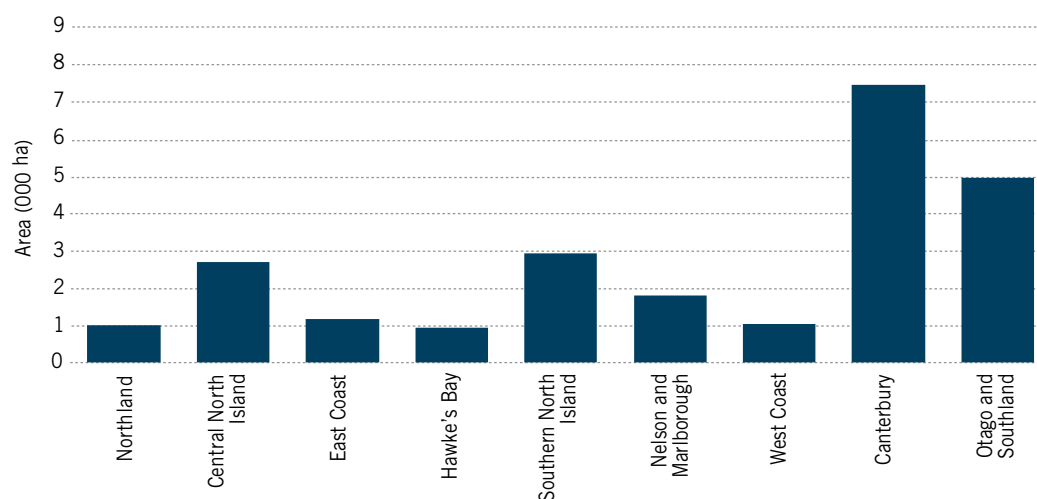


TABLE 9.12: AREA¹ PLANTED IN EUCALYPTS SPECIES BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	7	15	C	11	7	C	48	C	1	5	0	225
Whangarei District	0	0	C	18	23	C	72	C	0	0	1	127
Kaipara District	0	0	0	151	0	3	1	1	14	0	0	170
Auckland Council	28	23	2	5	9	3	8	4	3	3	0	88
Region total	35	38	C	185	39	C	129	48	18	8	1	610
Central North Island Wood Supply Region												
Thames-Coromandel District	0	0	0	1	0	31	32	33	0	6	1	104
Hauraki District	0	0	1	0	0	0	0	0	0	0	0	1
Waikato District	0	0	0	2	0	2	0	0	0	0	0	4
Matamata-Piako District	0	0	0	0	0	0	4	0	0	0	0	4
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	346	0	0	0	0	0	0	0	0	346
Otorohanga District	0	0	0	0	0	4	0	0	0	0	0	4
South Waikato District	339	260	416	15	337	73	19	0	4	0	0	1 463
Waitomo District	86	0	0	2	0	1	54	0	0	0	0	143
Taupo District	695	54	255	754	233	72	10	6	206	0	1	2 286
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	0	0	3	1	0	1	2	0	0	0	1	8
Western Bay of Plenty District	0	38	161	12	8	31	2	5	0	67	11	335
Rotorua District	0	35	130	87	1	24	0	0	0	0	10	287
Kawerau District	0	0	20	11	0	0	0	0	0	0	0	31
Whakatane District	0	170	124	553	26	36	4	2	0	0	0	915
Opotiki District	0	0	0	0	0	9	2	0	0	0	0	11
Region total	1 120	557	1 456	1 438	605	284	129	46	210	73	24	5 942
East Coast Wood Supply Region												
Gisborne District	781	11	C	18	200	C	45	34	2	1	0	1 227
Region total	781	11	C	18	200	C	45	34	2	1	0	1 227
Hawke's Bay Wood Supply Region												
Wairoa District	75	6	136	0	0	0	0	0	1	0	0	218
Hastings District	276	2	3	2	1	22	1	6	1	0	0	314
Napier City	0	0	0	6	0	0	0	0	0	0	0	6
Central Hawke's Bay District	0	0	0	1	0	0	3	5	5	0	0	14
Region total	351	8	139	9	1	22	4	11	7	0	0	552
Southern North Island Wood Supply Region												
New Plymouth District	0	0	0	0	0	0	0	0	0	0	1	1
Stratford District	0	0	0	0	0	0	0	0	0	0	1	1
South Taranaki District	2	0	0	0	1	1	1	0	0	0	0	5
Wanganui District	0	0	0	0	0	0	11	8	0	0	0	19
Rangitikei District	5	2	6	8	5	4	2	0	1	0	0	33
Manawatu District	0	0	8	3	0	0	0	0	0	0	0	11
Palmerston North City	0	0	0	0	0	0	0	0	0	0	0	0
Horowhenua District	0	0	0	1	0	19	1	2	0	0	0	23
Tararua District	270	0	0	0	0	0	0	0	0	0	0	270
Kapiti Coast District	0	0	0	0	1	0	0	0	0	0	0	1
Upper Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Porirua City	0	0	0	0	0	0	0	0	0	0	0	0
Wellington City	0	0	0	0	0	0	0	0	0	0	0	0
Lower Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Masterton District	0	2	0	0	2	2	1	0	1	1	0	9
Carterton District	0	0	0	0	0	0	0	0	0	0	1	1
South Wairarapa District	0	0	0	10	40	1	69	54	0	0	0	174
Region total	277	4	14	22	49	27	85	64	2	1	3	548
North Island total	2 564	618	1 632	1 672	894	554	392	203	239	83	28	8 879

TABLE 9.12: CONTINUED...

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Nelson & Marlborough Wood Supply Region												
Tasman District	0	0	C	7	10	97	150	75	2	0	C	344
Nelson City	0	0	0	0	1	0	30	2	0	0	0	33
Marlborough District	5	17	0	1	4	84	62	15	0	0	1	189
Kaikoura District	0	0	0	0	0	0	0	0	0	0	0	0
Region total	5	17	C	8	15	181	242	92	2	0	C	566
West Coast Wood Supply Region												
Buller District	0	0	0	0	0	0	2	4	0	0	7	13
Grey District	0	0	0	3	0	0	20	15	0	1	0	39
Westland District	0	0	1	3	0	1	33	8	0	0	0	46
Region total	0	0	1	6	0	1	55	27	0	1	7	98
Canterbury Wood Supply Region												
Hurunui District	0	0	14	0	2	1	0	0	0	0	0	17
Waimakariri District	0	0	0	0	0	2	0	0	0	0	0	2
Selwyn District	0	0	2	0	1	1	5	0	0	0	0	9
Christchurch City	0	0	C	29	0	0	0	0	0	0	C	44
Ashburton District	0	0	0	0	0	3	0	0	0	0	0	3
Mackenzie District	0	0	0	0	0	14	0	0	0	0	0	14
Timaru District	0	3	0	2	8	0	0	0	0	0	0	13
Waimate District	0	0	0	0	0	1	1	0	0	0	0	2
Region total	0	3	C	31	11	22	6	0	0	0	C	104
Otago & Southland Wood Supply Region												
Waitaki District	0	0	7	0	5	75	2	2	1	1	0	93
Queenstown-Lakes District	0	0	0	0	0	0	0	0	0	0	0	0
Central Otago District	0	0	0	0	0	9	4	17	0	0	0	30
Dunedin City	0	0	0	3	18	13	5	0	0	0	0	39
Clutha District	3	62	747	0	1	111	90	17	3	0	8	1 042
Southland District	1 378	797	3 606	3 280	1 134	168	54	4	14	0	2	10 437
Gore District	48	49	565	0	35	0	0	0	0	0	0	697
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	1 429	908	4 925	3 283	1 193	376	155	40	18	1	10	12 338
South Island total	1 434	928	4 947	3 328	1 219	580	458	159	20	2	31	13 106
New Zealand total	3 998	1 546	6 579	5 000	2 113	1 134	850	362	259	85	59	21 985

Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.13: AREA PLANTED IN EUCALYPTS SPECIES BY WOOD SUPPLY REGION

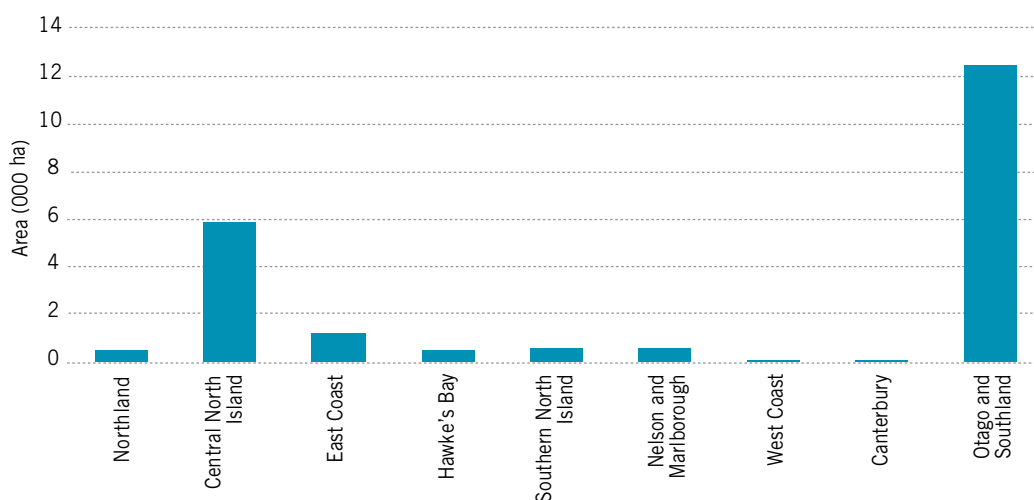


TABLE 9.13: AREA¹ PLANTED IN OTHER HARDWOODS BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	0	324	C	288	35	C	78	C	20	1	3	1 491
Whangarei District	0	3	C	168	80	C	31	C	1	0	2	462
Kaipara District	0	233	275	166	43	6	20	7	8	0	0	758
Auckland Council	1	20	198	231	83	81	81	37	10	7	9	758
Region total	1	580	C	853	241	C	210	51	39	8	14	3 469
Central North Island Wood Supply Region												
Thames-Coromandel District	0	0	4	34	3	5	5	6	0	0	2	59
Hauraki District	0	0	3	21	0	0	0	0	0	0	6	30
Waikato District	C	0	C	28	C	12	2	0	4	0	1	105
Matamata-Piako District	0	0	8	6	10	0	1	0	0	0	0	25
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	17	99	84	2	2	9	0	0	0	0	213
Otorohanga District	0	8	9	14	8	34	0	0	0	0	2	75
South Waikato District	10	21	15	38	7	2	3	0	4	2	0	102
Waitomo District	0	1	16	47	3	9	3	0	2	2	0	83
Taupo District	0	16	59	110	14	4	5	6	5	0	0	219
Tauranga District	0	2	5	4	1	0	1	0	0	0	0	13
Ruapehu District	0	1	1	4	0	0	1	0	0	0	10	17
Western Bay of Plenty District	C	17	C	64	C	50	31	0	0	1	0	257
Rotorua District	0	15	142	211	44	87	10	14	20	1	9	553
Kawerau District	0	0	0	3	0	0	0	0	0	0	0	3
Whakatane District	0	4	77	77	43	9	5	0	0	2	0	217
Opotiki District	0	1	16	5	5	0	0	0	0	0	0	27
Region total	21	103	542	750	193	214	76	26	35	8	30	1 998
East Coast Wood Supply Region												
Gisborne District	8	40	C	60	68	C	43	C	7	C	38	440
Region total	8	40	C	60	68	C	43	C	7	C	38	440
Hawke's Bay Wood Supply Region												
Wairoa District	31	12	7	1	0	37	11	0	0	3	22	124
Hastings District	205	C	38	28	C	42	12	C	1	C	2	389
Napier City	0	0	0	0	0	2	0	0	0	0	0	2
Central Hawke's Bay District	0	C	14	37	C	66	0	C	4	C	7	139
Region total	236	48	59	66	16	147	23	C	5	C	31	654
Southern North Island Wood Supply Region												
New Plymouth District	0	3	24	22	4	4	1	0	0	0	0	58
Stratford District	0	5	12	35	12	1	1	0	0	0	0	66
South Taranaki District	0	3	21	18	11	1	3	0	0	0	0	57
Wanganui District	1	C	34	C	13	0	1	0	4	0	6	96
Rangitikei District	0	3	48	44	30	4	4	2	6	36	5	182
Manawatu District	0	C	12	C	20	24	15	0	0	0	1	104
Palmerston North City	0	3	5	32	22	0	0	0	0	0	0	62
Horowhenua District	0	0	1	46	25	1	1	0	0	2	0	76
Tararua District	0	4	20	9	8	12	1	7	3	0	0	64
Kapiti Coast District	0	0	12	15	3	0	1	0	0	0	0	31
Upper Hutt City	0	0	0	2	1	8	14	0	0	0	0	25
Porirua City	0	0	0	0	0	2	0	0	0	0	0	2
Wellington City	0	0	0	0	0	0	0	0	0	0	0	0
Lower Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Masterton District	11	8	19	25	0	20	11	0	4	0	0	98
Carterton District	0	1	0	2	10	2	10	8	0	0	0	33
South Wairarapa District	0	1	0	23	66	27	9	0	0	0	0	126
Region total	12	44	208	329	225	106	72	17	17	38	12	1 080
North Island total	278	815	2 067	2 058	743	832	424	128	103	68	125	7 641

TABLE 9.13: CONTINUED...

TERRITORIAL AUTHORITY	AGE CLASS (YEARS)											
	1-5 YEARS (HA)	6-10 YEARS (HA)	11-15 YEARS (HA)	16-20 YEARS (HA)	21-25 YEARS (HA)	26-30 YEARS (HA)	31-35 YEARS (HA)	36-40 YEARS (HA)	41-50 YEARS (HA)	51-60 YEARS (HA)	61-80 YEARS (HA)	TOTAL (HA)
NELSON & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	1	2	C	111	58	39	C	61	21	23	C	377
Nelson City	0	0	0	4	6	0	0	3	0	2	0	15
Marlborough District	0	22	17	113	31	21	56	7	2	1	5	275
Kaikoura District	0	0	0	0	0	0	0	3	0	0	0	3
Region total	1	24	C	228	95	60	C	74	23	26	C	670
WEST COAST WOOD SUPPLY REGION												
Buller District	0	0	4	5	2	0	0	0	0	0	1	12
Grey District	74	43	9	5	7	45	2	0	0	0	0	185
Westland District	46	158	47	387	608	519	44	0	0	0	0	1 809
Region total	120	201	60	397	617	564	46	0	0	0	1	2 006
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	0	3	19	31	14	15	0	0	1	0	0	83
Waimakariri District	0	0	1	73	40	13	0	0	0	0	0	127
Selwyn District	0	0	8	25	32	4	1	1	0	3	0	74
Christchurch City	0	104	C	473	119	24	C	0	0	0	C	973
Ashburton District	0	0	3	27	9	6	0	0	0	0	0	45
Mackenzie District	0	0	5	33	1	2	3	0	0	9	9	62
Timaru District	0	5	24	19	8	12	0	0	41	0	10	119
Waimate District	0	0	2	25	19	2	0	0	4	2	1	55
Region total	0	112	C	706	242	78	C	1	46	14	C	1 538
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	0	2	5	34	22	12	1	5	0	0	3	84
Queenstown-Lakes District	0	0	0	0	0	3	0	0	0	0	0	3
Central Otago District	43	0	7	31	36	7	1	0	3	0	1	129
Dunedin City	0	1	2	18	23	13	0	0	0	0	16	73
Clutha District	0	3	16	37	24	39	35	2	5	12	13	186
Southland District	2	12	25	139	29	14	8	0	1	1	2	233
Gore District	0	1	5	2	6	2	0	0	0	0	0	16
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	45	19	60	261	140	90	45	7	9	13	35	724
South Island total	166	356	449	1 592	1 094	792	199	82	78	53	77	4 938
New Zealand total	444	1 171	2 516	3 650	1 837	1 624	623	210	181	121	202	12 579

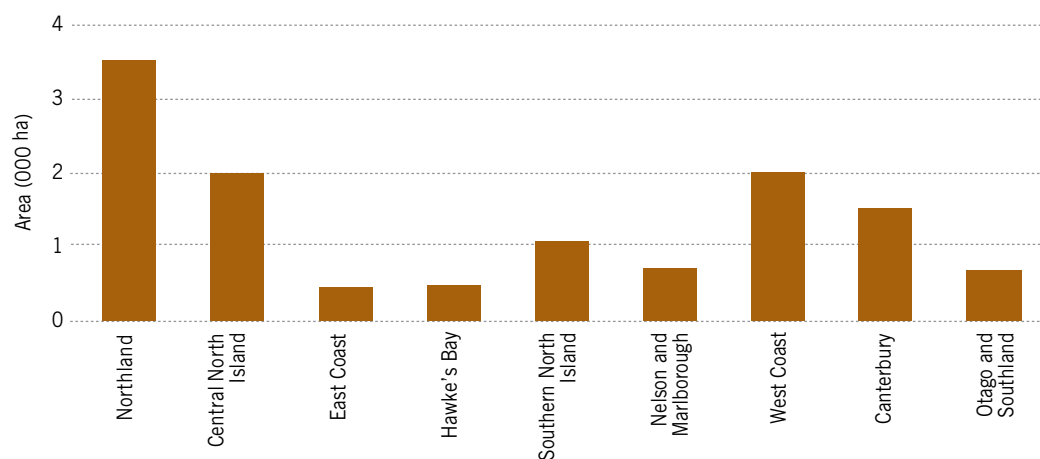
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.14: AREA PLANTED IN OTHER HARDWOODS BY WOOD SUPPLY REGION





RADIATA PINE TENDING REGIME

This section presents detailed information for each radiata pine NEFD tending regime, showing the forest area for each territorial authority by five-yearly age class. Figure 9.17 provides an overview of this, illustrating the radiata pine tending regime breakdown by age class.

The four tables that follow show the area:

- Pruned with production thinning;
- Pruned without production thinning;
- Unpruned with production thinning;
- Unpruned without production thinning.

FIGURE 9.15: RADIATA PINE FOREST AREA BY AGE CLASS AND TENDING REGIME, AS AT 1 APRIL 2013

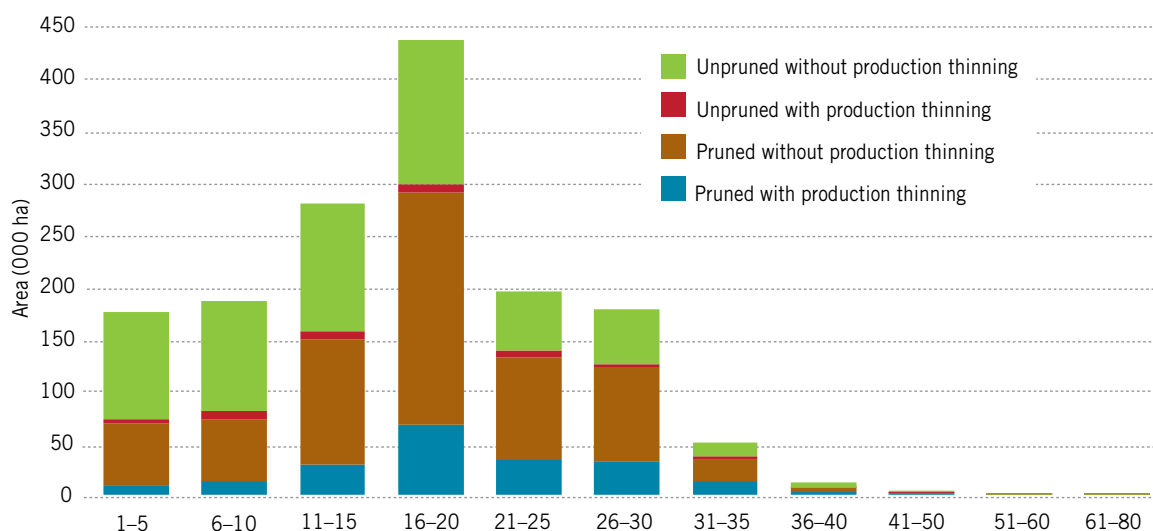


TABLE 9.14: AREA¹ OF RADIATA PINE PRUNED WITH PRODUCTION THINNING, BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	342	334	736	1 974	1 940	4 633	C	C	4	0	0	13 767
Whangarei District	3	117	537	1 287	753	213	116	134	113	0	1	3 274
Kaipara District	0	18	224	2 332	451	1 075	76	25	4	0	4	4 209
Auckland Council	55	45	965	2 220	349	287	218	333	36	1	0	4 509
Region total	400	514	2 462	7 813	3 493	6 208	C	C	157	1	5	25 759
Central North Island Wood Supply Region												
Thames-Coromandel District	C	41	67	409	37	125	63	C	0	0	0	802
Hauraki District	0	3	28	277	59	34	53	6	0	0	0	460
Waikato District	37	469	1 843	789	276	25	95	19	0	27	21	3 601
Matamata-Piako District	0	7	55	100	26	18	9	0	1	0	0	216
Hamilton City	0	0	0	0	0	0	1	0	0	0	0	1
Waipa District	59	127	207	548	60	47	118	7	8	0	0	1 181
Otorohanga District	0	44	146	383	116	17	29	2	0	0	0	737
South Waikato District	C	3	26	115	50	52	34	C	0	0	0	283
Waitomo District	C	45	535	1 677	327	160	54	C	0	0	0	2 870
Taupo District	4 058	6 613	4 613	2 653	7 864	13 981	4 796	63	17	0	0	44 658
Tauranga District	0	1	1	7	0	0	5	0	0	0	0	14
Ruapehu District	134	131	966	3 554	192	660	445	5	0	0	0	6 087
Western Bay of Plenty District	28	115	403	1 413	1 203	338	172	0	0	0	0	3 672
Rotorua District	1 337	1 170	2 070	2 380	1 851	460	188	7	2	2	6	9 473
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	1 483	1 760	4 052	7 261	5 228	2 145	348	1	6	0	0	22 284
Opotiki District	0	0	3	20	20	0	11	0	0	0	0	54
Region total	7 224	10 529	15 015	21 586	17 309	18 062	6 421	157	34	29	27	96 393
East Coast Wood Supply Region												
Gisborne District	27	59	640	2 292	888	156	221	29	0	0	0	4 312
Region total	27	59	640	2 292	888	156	221	29	0	0	0	4 312
Hawke's Bay Wood Supply Region												
Wairoa District	35	50	67	699	152	130	C	C	2	0	0	1 276
Hastings District	115	39	307	2 680	1 212	599	152	77	2	0	1	5 184
Napier City	0	0	0	6	0	2	0	0	0	0	0	8
Central Hawke's Bay District	56	107	620	2 163	613	240	295	95	7	0	0	4 196
Region total	206	196	994	5 548	1 977	971	C	C	11	0	1	10 664
Southern North Island Wood Supply Region												
New Plymouth District	0	82	153	453	246	207	64	37	1	0	0	1 243
Stratford District	0	35	88	579	215	15	20	4	0	0	1	957
South Taranaki District	35	101	926	1 510	419	224	169	36	4	0	3	3 427
Wanganui District	72	425	1 858	3 629	751	1 231	116	18	42	0	0	8 142
Rangitikei District	190	138	588	2 611	696	469	171	87	6	0	0	4 956
Manawatu District	69	103	296	1 053	527	198	182	25	8	0	0	2 461
Palmerston North City	0	65	112	227	87	25	59	15	0	0	0	590
Horowhenua District	0	54	145	873	766	276	119	29	7	5	1	2 275
Taranua District	C	59	188	C	574	183	167	20	7	0	0	2 248
Kapiti Coast District	0	30	330	562	80	76	22	8	0	0	0	1 108
Upper Hutt City	0	4	15	170	51	17	36	3	6	C	C	326
Porirua City	0	0	C	69	45	127	44	0	C	0	0	293
Wellington City	C	0	0	C	77	2	2	0	0	0	0	172
Lower Hutt City	0	0	12	34	0	3	15	14	0	0	0	78
Masterton District	0	48	228	758	381	29	23	42	1	C	C	1 514
Carterton District	0	26	7	69	25	1	10	1	4	0	0	143
South Wairarapa District	23	59	C	114	48	21	20	0	C	0	0	445
Region total	531	1 229	5 101	13 710	4 988	3 104	1 239	339	99	9	29	30 378
North Island total	8 388	12 527	24 212	50 949	28 655	28 501	12 061	1 811	301	39	62	167 506

TABLE 9.14: CONTINUED...

Territorial Authority	Age Class (Years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	
Nelson & Marlborough Wood Supply Region												
Tasman District	4	155	391	1 712	639	254	147	166	C	0	C	3 508
Nelson City	0	0	1	94	0	0	0	0	0	0	0	95
Marlborough District	72	136	1 018	3 839	701	885	234	91	3	0	0	6 979
Kaikoura District	0	3	25	127	15	4	7	0	0	0	0	181
Region total	76	294	1 435	5 772	1 355	1 143	388	257	C	0	C	10 763
West Coast Wood Supply Region												
Buller District	0	1	16	183	58	2	0	0	0	0	0	260
Grey District	0	0	7	145	39	44	67	24	0	0	0	326
Westland District	0	1	28	51	7	23	0	0	0	0	0	110
Region total	0	2	51	379	104	69	67	24	0	0	0	696
Canterbury Wood Supply Region												
Hurunui District	C	111	421	1 621	C	C	C	66	C	C	C	3 309
Waimakariri District	0	90	174	1 027	584	162	62	13	0	26	0	2 138
Selwyn District	C	44	60	443	292	C	131	10	C	C	C	1 098
Christchurch City	0	131	317	949	C	C	C	94	C	0	0	1 981
Ashburton District	0	14	22	244	52	175	36	0	28	0	0	571
Mackenzie District	0	10	51	195	29	43	21	0	1	0	0	350
Timaru District	20	36	189	669	199	114	76	23	13	1	1	1 341
Waimate District	0	31	87	284	130	44	28	2	0	0	0	606
Region total	28	467	1 321	5 432	2 030	1 072	671	208	C	30	C	11 394
Otago & Southland Wood Supply Region												
Waitaki District	5	154	352	698	328	73	152	26	2	0	0	1 790
Queenstown-Lakes District	0	0	0	15	0	10	86	0	0	0	0	111
Central Otago District	0	40	33	66	54	91	36	4	1	0	38	363
Dunedin City	6	32	101	525	371	57	5	2	0	1	0	1 100
Clutha District	6	81	716	2 374	1 201	290	102	46	17	0	0	4 833
Southland District	128	257	838	1 463	579	237	262	149	79	0	0	3 992
Gore District	0	2	197	444	47	5	19	2	16	0	0	732
Invercargill City	0	3	0	49	14	0	1	0	0	0	0	67
Region total	145	569	2 237	5 634	2 594	763	663	229	115	1	38	12 988
South Island total	249	1 332	5 044	17 217	6 083	3 047	1 789	718	284	31	47	35 841
New Zealand total	8 637	13 859	29 256	68 166	34 738	31 548	13 850	2 529	585	70	109	203 347

Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.16: AREA OF RADIATA PINE PRUNED WITH PRODUCTION THINNING BY WOOD SUPPLY REGION

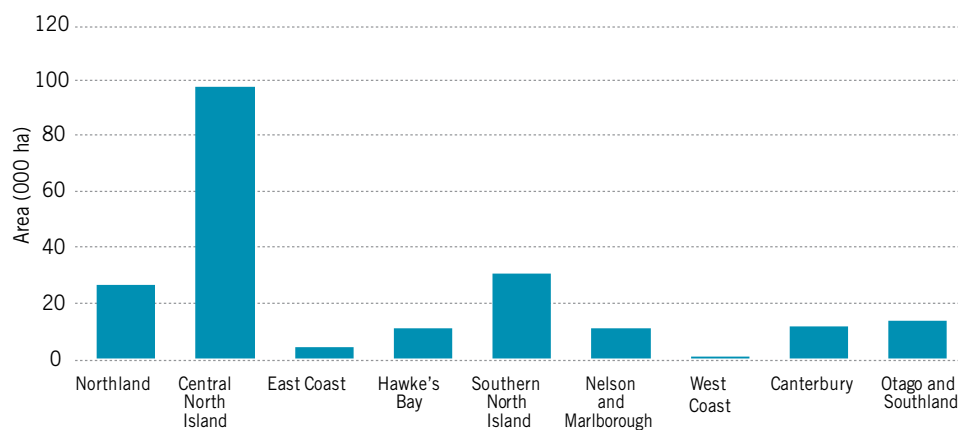


TABLE 9.15: AREA¹ OF RADIATA PINE PRUNED WITHOUT PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	2 241	3 189	3 981	12 084	4 078	6 821	C	C	134	0	0	34 219
Whangarei District	39	230	1 268	4 022	2 044	1 316	425	55	0	0	2	9 401
Kaipara District	316	866	1 287	4 587	1 759	1 135	398	61	22	5	0	10 436
Auckland Council	562	1 339	2 045	3 599	611	1 411	801	282	253	0	2	10 905
Region total	3 158	5 624	8 581	24 292	8 492	10 683	C	C	409	5	4	64 961
Central North Island Wood Supply Region												
Thames-Coromandel District	C	53	108	555	273	1 187	148	C	4	0	0	2 406
Hauraki District	44	13	445	890	727	21	0	0	0	0	0	2 140
Waikato District	250	573	1 661	2 888	1 119	331	35	37	0	0	1	6 895
Matamata-Piako District	0	5	44	138	167	32	44	2	0	0	0	432
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	243	129	83	3	17	0	0	0	0	475
Otorohanga District	0	601	466	649	108	176	34	30	0	0	0	2 064
South Waikato District	C	311	706	1 040	4 826	5 048	276	C	11	0	0	12 357
Waitomo District	C	582	2 945	5 465	614	637	69	C	0	0	0	10 325
Taupo District	10 847	11 425	10 732	7 283	7 876	6 957	2 203	188	10	5	22	57 548
Tauranga District	0	6	11	50	16	0	0	0	0	0	0	83
Ruapehu District	3 389	569	2 214	4 373	1 889	1 409	995	5	0	0	0	14 843
Western Bay of Plenty District	850	220	1 580	3 957	2 929	1 518	115	15	2	0	0	11 186
Rotorua District	2 066	3 175	5 261	4 204	3 162	2 324	144	14	11	3	1	20 365
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	1 962	1 825	10 631	10 447	7 144	5 924	1 575	290	139	5	0	39 942
Opotiki District	277	74	915	339	1 355	3 333	854	68	0	0	0	7 215
Region total	19 827	19 432	37 962	42 407	32 288	28 900	6 509	737	177	13	24	188 276
East Coast Wood Supply Region												
Gisborne District	11 972	5 436	18 095	38 995	15 448	12 933	3 098	365	42	21	2	106 407
Region total	11 972	5 436	18 095	38 995	15 448	12 933	3 098	365	42	21	2	106 407
Hawke's Bay Wood Supply Region												
Wairoa District	6 616	5 937	6 098	19 048	1 589	2 723	C	C	C	C	0	42 718
Hastings District	1 623	3 893	5 432	10 671	5 231	3 855	322	64	8	2	2	31 103
Napier City	0	0	0	54	7	39	9	5	0	0	0	114
Central Hawke's Bay District	459	594	2 032	2 824	691	269	44	24	C	C	1	6 946
Region total	8 698	10 424	13 562	32 597	7 518	6 886	C	C	16	5	3	80 881
Southern North Island Wood Supply Region												
New Plymouth District	22	47	442	653	59	190	10	4	0	0	0	1 427
Stratford District	0	70	139	2 060	286	372	175	2	0	0	0	3 104
South Taranaki District	10	100	531	1 938	1 194	175	60	0	0	0	0	4 008
Wanganui District	1 571	1 597	1 295	5 366	2 759	1 574	21	15	7	0	0	14 205
Rangitikei District	294	213	1 853	4 811	782	205	153	37	3	0	0	8 351
Manawatu District	169	82	248	916	290	60	272	56	5	2	0	2 100
Palmerston North City	279	25	2	153	162	13	153	20	1	0	0	808
Horowhenua District	43	143	106	268	463	43	13	16	0	0	0	1 095
Tararua District	C	497	438	C	587	144	63	127	23	3	0	3 317
Kapiti Coast District	54	84	249	579	320	626	139	35	1	0	0	2 087
Upper Hutt City	615	535	656	615	440	410	255	60	5	2	0	3 593
Porirua City	2	18	C	119	366	29	4	69	C	0	0	704
Wellington City	C	0	8	C	8	17	0	0	0	0	0	308
Lower Hutt City	0	0	10	26	0	0	41	0	0	0	0	77
Masterton District	2 015	2 201	3 545	9 470	2 736	3 675	1 149	164	C	C	0	24 984
Carterton District	954	296	2 702	1 253	808	865	460	35	0	0	4	7 377
South Wairarapa District	361	272	C	1 968	1 179	345	20	11	C	C	0	5 404
Region total	6 854	6 180	13 563	31 440	12 439	8 743	2 988	651	74	13	4	82 949
North Island total	50 509	47 096	91 763	169 731	76 185	68 145	16 671	2 562	718	57	37	523 474

TABLE 9.15: CONTINUED...

Territorial Authority	Age Class (Years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	
Nelson & Marlborough Wood Supply Region												
Tasman District	461	409	3 805	7 385	3 947	2 978	298	27	18	0	0	19 328
Nelson City	109	19	95	448	288	252	52	17	1	0	0	1 281
Marlborough District	767	1 610	4 581	11 898	5 283	6 406	1 164	298	97	0	0	32 104
Kaikoura District	23	69	98	576	29	77	28	41	0	0	0	941
Region total	1 360	2 107	8 579	20 307	9 547	9 713	1 542	383	116	0	0	53 654
West Coast Wood Supply Region												
Buller District	361	10	53	820	C	464	C	7	0	0	0	1 903
Grey District	16	749	1 663	1 492	514	1 592	316	14	53	0	0	6 409
Westland District	696	257	700	1 599	C	192	C	32	34	0	0	3 644
Region total	1 073	1 016	2 416	3 911	712	2 248	440	53	87	0	0	11 956
Canterbury Wood Supply Region												
Hurunui District	39	876	2 432	3 748	1 540	1 422	181	132	20	0	1	10 391
Waimakariri District	156	224	751	1 387	1 067	335	4	0	3	0	0	3 927
Selwyn District	256	102	263	621	1 132	910	7	49	1	0	0	3 341
Christchurch City	170	132	273	1 942	543	455	126	55	8	0	1	3 705
Ashburton District	30	45	154	300	96	183	3	48	0	0	1	860
Mackenzie District	0	68	148	838	100	40	32	13	41	0	0	1 280
Timaru District	179	315	277	973	753	783	31	2	0	0	0	3 313
Waimate District	619	350	479	2 202	340	409	68	0	0	0	0	4 467
Region total	1 449	2 112	4 777	12 011	5 571	4 537	452	299	73	0	3	31 284
Otago & Southland Wood Supply Region												
Waitaki District	486	436	2 840	2 810	657	1 372	124	60	35	12	5	8 837
Queenstown-Lakes District	0	0	0	6	4	7	2	0	3	0	1	23
Central Otago District	5	C	124	522	C	98	67	78	1	0	0	961
Dunedin City	765	577	835	1 807	1 370	2 156	132	22	25	0	0	7 689
Clutha District	2 417	2 726	6 894	11 554	4 116	3 801	1 094	165	36	5	2	32 810
Southland District	1 576	1 566	3 201	5 698	2 092	1 031	297	95	13	0	0	15 569
Gore District	0	1	125	175	82	10	91	0	1	0	0	485
Invercargill City	0	C	62	75	C	69	104	57	3	5	0	483
Region total	5 249	5 349	14 081	22 647	8 452	8 544	1 911	477	117	22	8	66 857
South Island total	9 131	10 584	29 853	58 876	24 282	25 042	4 345	1 212	393	22	11	163 751
New Zealand total	59 640	57 680	121 616	228 607	100 467	93 187	21 016	3 774	1 111	79	48	687 225

Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.17: AREA OF RADIATA PINE PRUNED WITHOUT PRODUCTION THINNING BY WOOD SUPPLY REGION

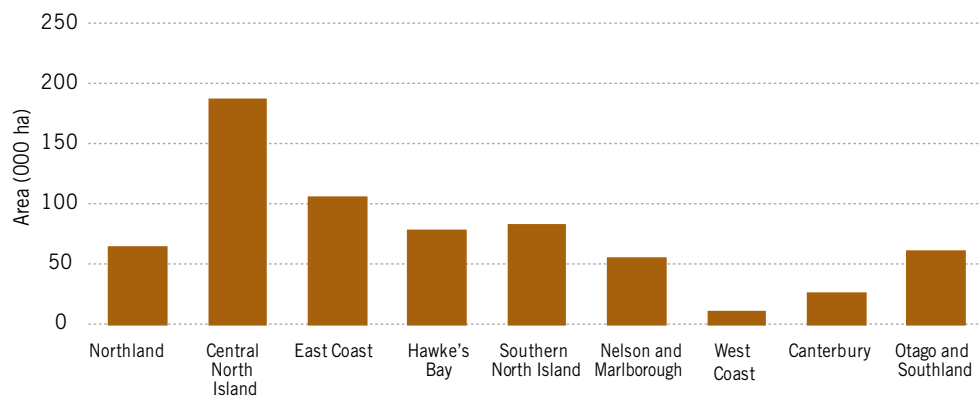


TABLE 9.16: AREA¹ OF RADIATA PINE UNPRUNED WITH PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	1 257	2 220	1 107	165	3	71	128	59	30	0	0	5 040
Whangarei District	0	0	0	1	0	0	0	3	0	0	0	4
Kaipara District	0	2	4	63	344	212	0	0	0	0	0	625
Auckland Council	0	24	130	680	1 188	94	0	0	0	0	0	2 116
Region total	1 257	2 246	1 241	909	1 535	377	128	62	30	0	0	7 785
Central North Island Wood Supply Region												
Thames-Coromandel District	12	39	37	132	20	57	80	30	0	0	0	407
Hauraki District	0	0	0	0	0	0	0	0	0	0	0	0
Waikato District	0	0	1	6	7	0	0	0	0	4	0	18
Matamata-Piako District	0	0	0	0	0	0	0	0	0	0	0	0
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	1	37	36	0	0	0	0	0	0	0	74
Otorohanga District	0	14	12	53	3	0	19	0	0	0	0	101
South Waikato District	0	2	4	19	8	0	0	0	0	0	0	33
Waitomo District	0	20	216	456	90	0	7	0	0	0	0	789
Taupo District	1 538	1 177	413	196	928	778	1 257	0	1	0	0	6 288
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	162	64	705	768	1 085	134	34	17	0	0	0	2 969
Western Bay of Plenty District	214	239	253	73	91	13	8	0	0	0	0	891
Rotorua District	80	772	1 424	84	81	1	0	0	0	0	1	2 443
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	363	627	1 177	74	626	34	25	0	0	0	0	2 926
Opotiki District	80	1	20	4	1	135	0	0	0	0	0	241
Region total	2 449	2 956	4 299	1 901	2 940	1 152	1 430	47	1	4	1	17 180
East Coast Wood Supply Region												
Gisborne District	0	39	7	156	256	173	72	43	0	0	0	746
Region total	0	39	7	156	256	173	72	43	0	0	0	746
Hawke's Bay Wood Supply Region												
Wairoa District	0	5	4	465	0	38	33	0	0	0	0	545
Hastings District	35	4	17	270	304	8	0	3	4	0	0	645
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	13	0	15	14	4	18	3	4	0	0	0	71
Region total	48	9	36	749	308	64	36	7	4	0	0	1 261
Southern North Island Wood Supply Region												
New Plymouth District	C	1	5	C	0	0	0	0	0	0	0	85
Stratford District	0	0	0	0	0	0	0	0	0	0	0	0
South Taranaki District	C	0	0	C	7	3	0	2	0	0	0	17
Wanganui District	0	225	0	196	10	79	0	0	0	0	0	510
Rangitikei District	333	704	842	693	141	0	0	9	0	2	0	2 724
Manawatu District	0	1	1	10	0	9	0	0	0	0	0	21
Palmerston North City	0	0	0	42	0	0	0	0	0	0	0	42
Horowhenua District	222	314	343	292	105	0	1	0	2	32	0	1 311
Taranua District	0	11	15	210	7	30	5	6	0	0	0	284
Kapiti Coast District	0	0	0	10	0	0	0	0	0	0	0	10
Upper Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Porirua City	0	0	0	0	0	0	0	0	0	0	0	0
Wellington City	0	0	28	0	0	8	0	0	0	0	0	36
Lower Hutt City	0	0	0	0	0	29	53	0	0	0	0	82
Masterton District	98	5	72	53	21	19	4	0	0	0	0	272
Carterton District	0	0	1	7	0	3	0	0	0	0	0	11
South Wairarapa District	0	34	157	52	25	6	3	2	0	0	0	279
Region total	655	1 295	1 464	1 647	316	186	66	19	2	34	0	5 684
North Island total	4 409	6 545	7 047	5 362	5 355	1 952	1 732	178	37	38	1	32 656

TABLE 9.16: CONTINUED...

Territorial Authority	Age Class (Years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	
Nelson & Marlborough Wood Supply Region												
Tasman District	24	102	162	569	180	85	108	49	C	0	C	1 303
Nelson City	0	0	C	9	0	0	C	0	0	0	0	12
Marlborough District	57	13	C	308	215	47	C	134	3	0	0	943
Kaikoura District	0	0	0	1	5	0	0	0	0	0	0	6
Region total	81	115	256	887	400	132	183	183	C	0	C	2 264
West Coast Wood Supply Region												
Buller District	0	0	0	0	0	0	0	0	0	0	0	0
Grey District	0	0	37	1	0	0	0	0	0	0	0	38
Westland District	0	0	0	0	0	0	0	4	0	0	0	4
Region total	0	0	37	1	0	0	0	4	0	0	0	42
Canterbury Wood Supply Region												
Hurunui District	421	37	111	609	C	C	62	1	C	0	C	1 494
Waimakariri District	0	5	9	146	39	15	2	8	3	3	2	232
Selwyn District	C	26	200	285	19	C	3	20	C	0	C	560
Christchurch City	0	2	16	99	C	C	0	0	1	0	0	128
Ashburton District	5	3	2	47	C	C	7	30	0	0	0	157
Mackenzie District	111	6	28	29	17	11	23	14	28	0	0	267
Timaru District	0	1	0	30	58	25	8	0	0	0	0	122
Waimate District	0	0	2	53	28	4	2	1	1	0	0	91
Region total	537	80	368	1 298	375	140	107	74	C	3	C	3 051
Otago & Southland Wood Supply Region												
Waitaki District	0	1	14	75	26	0	45	0	0	0	0	161
Queenstown-Lakes District	0	0	1	0	0	0	0	0	0	0	0	1
Central Otago District	0	0	0	3	0	0	0	0	0	0	0	3
Dunedin City	0	0	0	1	4	0	0	0	0	0	0	5
Clutha District	0	866	701	91	40	5	10	0	0	0	0	1 713
Southland District	137	266	150	117	88	38	20	20	51	0	0	887
Gore District	0	0	6	20	18	0	0	0	0	0	0	44
Invercargill City	0	0	5	6	0	0	0	0	0	0	0	11
Region total	137	1 133	877	313	176	43	75	20	51	0	0	2 825
South Island total	755	1 328	1 538	2 499	951	315	365	281	144	3	3	8 182
New Zealand total	5 164	7 873	8 585	7 861	6 306	2 267	2 097	459	181	41	4	40 838

Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.18: AREA OF RADIATA PINE UNPRUNED WITH PRODUCTION THINNING BY WOOD SUPPLY REGION

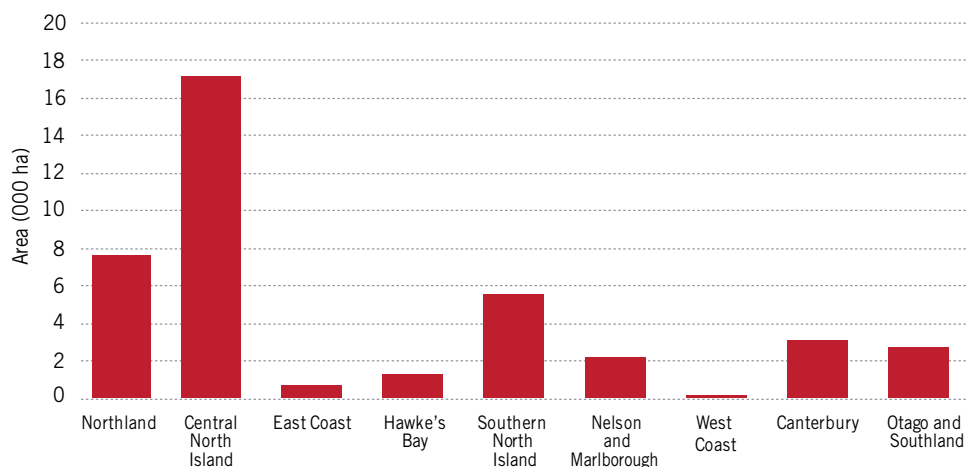


TABLE 9.17: AREA¹ OF RADIATA PINE UNPRUNED WITHOUT PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2013

Territorial Authority	Age Class (Years)											
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61-80 Years (ha)	Total (ha)
Northland Wood Supply Region												
Far North District	9 202	5 170	4 298	4 987	1 830	8 857	1 012	601	182	6	0	36 145
Whangarei District	3 876	2 605	2 467	2 159	778	5 833	377	150	22	1	0	18 268
Kaipara District	2 362	1 958	2 372	4 805	3 770	6 133	78	53	64	2	2	21 599
Auckland Council	3 326	4 480	6 617	4 904	1 121	414	218	120	7	3	9	21 219
Region total	18 766	14 213	15 754	16 855	7 499	21 237	1 685	924	275	12	11	97 231
Central North Island Wood Supply Region												
Thames-Coromandel District	3 203	3 235	2 057	1 882	1 225	378	135	55	24	20	15	12 229
Hauraki District	246	106	174	115	65	13	1	5	1	0	0	726
Waikato District	1 572	788	1 529	2 256	1 530	108	201	24	17	35	25	8 085
Matamata-Piako District	197	290	27	13	62	21	51	9	0	0	0	670
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	41	4	61	117	89	2	32	0	0	0	2	348
Otorohanga District	0	80	607	705	142	182	11	15	0	0	0	1 742
South Waikato District	5 095	10 273	13 929	12 050	9 161	1 113	169	20	17	0	94	51 921
Waitomo District	1 832	3 229	1 467	1 615	167	344	157	12	0	0	0	8 823
Taupo District	7 577	7 813	14 175	12 351	5 888	1 827	1 103	66	33	25	4	50 862
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	2 633	1 505	4 739	9 081	1 049	3 183	786	308	1	0	0	23 285
Western Bay of Plenty District	824	1 733	1 880	926	1 441	93	46	0	2	0	3	6 948
Rotorua District	2 922	3 930	3 256	2 264	1 887	632	101	3	33	0	8	15 036
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	10 045	8 726	5 101	5 307	890	129	84	12	35	31	1	30 361
Opotiki District	1 034	813	784	545	604	3 787	1 268	18	0	0	0	8 853
Region total	37 221	42 525	49 786	49 227	24 200	11 812	4 145	547	163	111	152	219 889
East Coast Wood Supply Region												
Gisborne District	7 124	4 313	8 945	8 362	4 300	3 431	2 161	869	160	3	6	39 674
Region total	7 124	4 313	8 945	8 362	4 300	3 431	2 161	869	160	3	6	39 674
Hawke's Bay Wood Supply Region												
Wairoa District	1 416	1 658	1 623	2 532	154	2 113	194	5	C	C	0	9 709
Hastings District	5 249	5 446	4 926	5 214	584	397	201	79	45	22	0	22 163
Napier City	0	0	0	1	0	6	0	0	0	0	0	7
Central Hawke's Bay District	535	127	1 261	1 408	414	216	101	41	C	C	14	4 156
Region total	7 200	7 231	7 810	9 155	1 152	2 732	496	125	85	35	14	36 035
Southern North Island Wood Supply Region												
New Plymouth District	C	45	163	C	101	29	23	25	5	0	0	601
Stratford District	171	418	199	421	184	359	8	2	0	0	0	1 762
South Taranaki District	C	97	401	C	332	222	86	15	28	3	1	2 255
Wanganui District	768	679	1 386	1 842	132	19	101	14	5	0	9	4 955
Rangitikei District	134	107	1 672	2 695	321	87	105	86	160	45	0	5 412
Manawatu District	130	101	496	568	269	101	56	42	6	0	4	1 773
Palmerston North City	151	190	7	75	49	41	130	106	6	0	0	755
Horowhenua District	132	503	263	514	103	42	73	56	0	0	2	1 688
Taranua District	1 191	452	1 433	4 834	553	417	425	56	32	6	7	9 406
Kapiti Coast District	0	37	153	42	33	0	53	70	1	0	0	389
Upper Hutt City	35	73	150	258	153	181	32	35	17	C	C	951
Porirua City	0	0	0	81	225	78	0	0	0	0	0	384
Wellington City	0	0	0	32	26	0	0	0	0	0	0	58
Lower Hutt City	0	0	0	28	0	6	18	6	0	0	0	58
Masterton District	88	699	889	1 906	760	645	282	195	C	C	C	5 687
Carterton District	135	255	857	813	245	172	43	112	76	2	0	2 710
South Wairarapa District	47	232	523	515	326	174	183	83	C	C	1	2 145
Region total	3 030	3 888	8 592	15 856	3 812	2 573	1 618	903	574	105	38	40 989
North Island total	73 341	72 170	90 887	99 455	40 963	41 785	10 105	3 368	1 257	266	221	433 818

TABLE 9.17: CONTINUED...

TERRITORIAL AUTHORITY	AGE CLASS (YEARS)											
	1-5 YEARS (HA)	6-10 YEARS (HA)	11-15 YEARS (HA)	16-20 YEARS (HA)	21-25 YEARS (HA)	26-30 YEARS (HA)	31-35 YEARS (HA)	36-40 YEARS (HA)	41-50 YEARS (HA)	51-60 YEARS (HA)	61-80 YEARS (HA)	TOTAL (HA)
NELSON & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	13 217	14 025	8 795	8 738	5 744	2 397	631	153	181	17	13	53 911
Nelson City	1 979	1 359	C	1 420	511	197	C	11	2	0	0	6 908
Marlborough District	6 795	5 887	C	8 178	1 792	1 885	C	162	160	27	2	29 645
Kaikoura District	0	10	30	40	3	14	12	0	1	2	0	112
Region total	21 991	21 281	14 000	18 376	8 050	4 493	1 654	326	344	46	15	90 576
WEST COAST WOOD SUPPLY REGION												
Buller District	359	156	76	149	C	90	C	8	4	0	0	886
Grey District	1 224	1 981	559	397	21	184	655	87	95	2	0	5 205
Westland District	324	1 248	710	1 163	C	247	C	283	17	1	0	4 177
Region total	1 907	3 385	1 345	1 709	66	521	838	378	116	3	0	10 268
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	1 941	3 472	5 926	5 356	2 704	1 442	C	8	C	C	6	21 000
Waimakariri District	296	811	1 779	2 578	1 398	584	59	15	18	36	0	7 574
Selwyn District	514	334	572	1 313	375	267	226	205	C	C	0	3 832
Christchurch City	199	129	165	752	233	172	C	72	C	1	22	1 923
Ashburton District	363	247	260	286	46	84	27	13	8	5	15	1 354
Mackenzie District	39	19	57	227	46	4	15	5	49	2	0	463
Timaru District	91	66	173	793	386	128	12	0	11	0	0	1 660
Waimate District	143	173	230	675	155	475	252	17	18	34	5	2 177
Region total	3 586	5 251	9 162	11 980	5 343	3 156	896	335	138	88	48	39 983
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	405	413	618	743	388	440	60	43	8	22	2	3 142
Queenstown-Lakes District	0	0	14	25	20	6	13	0	1	20	6	105
Central Otago District	0	C	61	334	C	42	34	4	8	3	32	678
Dunedin City	2 417	195	91	358	281	450	67	75	3	13	1	3 951
Clutha District	2 783	4 919	5 032	3 253	1 261	596	547	63	13	10	2	18 479
Southland District	1 772	3 303	5 173	5 358	1 510	2 427	399	219	110	16	0	20 287
Gore District	6	23	283	268	260	22	34	6	20	1	0	923
Invercargill City	0	C	7	43	C	12	27	0	4	0	0	111
Region total	7 383	8 947	11 279	10 382	3 804	3 995	1 181	410	167	85	43	47 676
South Island total	34 867	38 864	35 786	42 447	17 263	12 165	4 569	1 449	765	222	106	188 503
New Zealand total	108 208	111 034	126 673	141 902	58 226	53 950	14 674	4 817	2 022	488	327	622 321

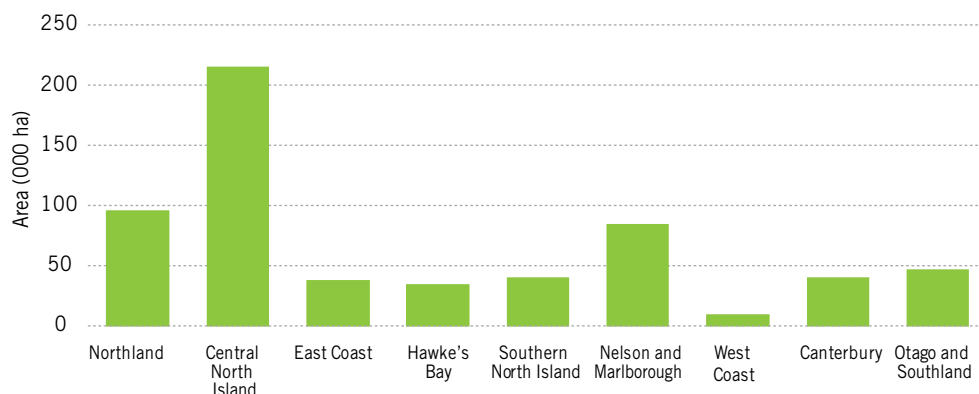
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

FIGURE 9.19: AREA OF RADIATA PINE UNPRUNED WITHOUT PRODUCTION THINNING BY WOOD SUPPLY REGION



APPENDIX 1: GLOSSARY

Age: The ages of forest areas are as at 1 April of the survey year. A forest area is age one as at 1 April 2013 if it was planted in the preceding 12-month period, that is, between 1 April 2012 and 31 March 2013.

Confidentiality: Figures are considered confidential if the figure is made up of fewer than three owners' information or where one owner's data makes up more than 80 percent of the number. Forest owners are asked whether they are prepared to waive these strict confidentiality criteria in relation to the data they supply. If a number does not meet the confidentiality criteria and one of the contributors to the confidential number is not prepared to waive the confidentiality rules then that number is not published.

Clear fell: To harvest all merchantable trees within a specified physical area of land.

Crop type: For the purpose of the NEFD, a crop type is defined as an aggregate of forest stands of the same species group and tending regime located within the same territorial authority area. The crop type definitions are mutually exclusive.

Land cover types prior to afforestation:

- "Improved pasture" is land that contains improved pasture species and/or has been fertilised.
- "Unimproved pasture" is land with no improved pasture species that has not been fertilised.
- "Other woody land" is land predominantly covered in species such as bracken, gorse, manuka, kanuka or other woody plant species.

Net stocked forest area: The planted production forest area occupied by trees excluding mappable gaps such as landings, roads and other unstocked areas.

New planting: The planting of trees for the primary purpose of producing wood or wood fibre, on land that has not previously been used for growing planted production forests.

Planted production forest: An area of trees not less than one hectare in size, planted and managed with the

intention of producing wood or wood fibre. In New Zealand almost all planted production forests are made up of introduced tree species.

The NEFD survey does not aim to collect information on individual forests. Instead, it collects the forest area by crop type of all forests administered by each forest owner or manager.

Replanting: The replanting of a planted production forest area that has been clear felled.

Rotation number:

- The first rotation is stands of forest planted on land not previously in planted forest.
- The second and subsequent rotations are stands of forest growing on land from which a previous forest crop has been grown and harvested.

Species group: Six groupings of tree species are used to describe the national planted production forest resource:

- radiata pine (*Pinus radiata*);
- Douglas-fir (*Pseudotsuga menziesii*);
- cypress species;
- other softwoods;
- eucalypt species;
- other hardwoods.

Where a mixture of species is present the area is allocated to the crop type of the dominant species group.

Stand: A defined area of standing trees or forest, usually of one species, age and tending regime.

Standing volume: The total volume (in cubic metres) of wood contained in all live crop stems of all age classes. The standing volume includes some non-recoverable volume such as stumps and the non-merchantable tops of stems, but excludes bark.

Tending regime: The tending regime is based on the current management, or prior to application of tending, the intention to carry out pruning or production thinning.

Radiata pine has four tending regime categories, Douglas-fir has two, and other softwoods and hardwoods are not assigned a tending regime.

The radiata pine tending regime categories are:

- pruned with production thinning;
- pruned without production thinning;
- unpruned with production thinning;
- unpruned without production thinning.

The Douglas-fir tending regime categories are:

- with production thinning;
- without production thinning.

“Pruned” refers to pruning carried out before age 12 so that more than 50 percent of the stems in the planned final crop stocking will contain a pruned butt log of not less than four metres in length.

“Production thinning” refers to the extraction of thinnings for commercial use. Stands that have been production thinned produce a smaller clear fell volume than stands that have not been production thinned.

Territorial authority: District and city council areas adopted in October 1989 (see Table 7.1 and Figures 7.1 and 7.2).

TRVIB: Total recoverable volume inside bark. This is the volume of wood recovered during harvesting, excluding bark, expressed in cubic metres.

Wood supply region: Zones in New Zealand where forest stands of the same species and tending regime are represented by the same generalised yield table. These regions reflect wood supply processing catchments, and reconcile with aggregates of territorial authorities.

Yield table: A tabular representation of forest yield in cubic metres per hectare. The yield table is expressed in terms of total standing volume, total recoverable volume and three log type volumes, together with any production thinning volumes by age (one to 80 years). There is a separate yield table for each crop type.

APPENDIX 2: 2012 REVISED DATA – TABLE 2.1

TABLE 2.1: NATIONAL EXOTIC FOREST ESTATE STATISTICS

AREA AND STANDING VOLUME STATISTICS

	AS AT 1 APRIL 2012 PUBLISHED	AS AT 1 APRIL 2012 ¹ REVISED	DIFFERENCE
FOREST AREA			
Net stocked area (ha)	1 719 500	1 720 840	1 340
Harvested area awaiting replanting (ha) ²	60 548	57 354	-3 194
Total forest area	1 780 000	1 778 194	-1 806
GROWTH CHARACTERISTICS			
Standing volume (000 m ³)	488 437	488 493	56
Average standing volume (m ³ /ha)	284	283	-1
Area-weighted average age (years)	16.4	16.4	-
AREA BY SPECIES³			
Radiata pine (ha)	1 543 000	1 543 600	600
Douglas-fir (ha)	108 000	107 900	-100
Cypress species (ha)	10 000	10 400	400
Other softwoods (ha)	24 000	23 700	-300
Eucalyptus species (ha)	23 000	22 800	-200
Other hardwoods (ha)	13 000	12 500	-500
RADIATA PINE AREA BY TENDING REGIME			
Pruned with production thinning (ha)	207 000	206 500	-500
Pruned without production thinning (ha)	692 000	692 100	100
Unpruned with production thinning (ha)	41 000	41 000	-
Unpruned without production thinning (ha)	603 000	603 900	900

PLANTING STATISTICS

	YEAR ENDED 31 DECEMBER 2012 PUBLISHED	YEAR ENDED 31 DECEMBER 2012 REVISED	DIFFERENCE
NEW PLANTING⁴			
Total estimated new planting (ha) ⁵	12 000	12 000	-
Restocking (ha)	39 253	44 388	5 135

HARVESTING STATISTICS⁶

	YEAR ENDED 31 MARCH 2012 PUBLISHED	YEAR ENDED 31 MARCH 2012 REVISED	DIFFERENCE
HARVESTING			
Area clear felled – all species (ha)	44 104	44 618	514
Area clear felled – radiata pine (ha)	40 613	41 066	453
Volume clear felled – all species (000 m ³)	23 312	23 567	255
Volume production thinned – all species (000 m ³)	90	95	5
Total volume removed – all species (000 m ³) ⁷	23 402	23 662	260
Average clear fell yield – all species (m ³ /ha)	529	530	1
Volume clear felled – radiata pine (000 m ³)	21 973	22 215	242
Average clear fell yield – radiata pine (m ³ /ha)	541	559	18
Area-weighted average clear fell age for radiata pine (years)	28.6	28.8	-

Notes

1. The 2012 National Exotic Forest Description reported figures have been revised due to the previously published dataset being updated.
2. In this report, the area of harvested land that was recorded as awaiting a land use decision has been reported in the area awaiting replanting.
3. Individual entries may not add to totals due to rounding. Breakdowns by Territorial Authority can be found in chapter 9.
4. The forestry statistics released in this report, and in particular, new planting estimates, may differ from those produced in the Agricultural Production Survey by Statistics New Zealand. These surveys use different survey frames and designs.
5. The method used to estimate new planting is described on page 7 of this report.
6. All volumes are reported as recovered volumes inside bark.
7. These estimates are based on data collected in the 2012 NEFD surveys and may differ from the roundwood removals estimate as published in the *Annual log and roundwood removal statistics*, Ministry for Primary Industries. This is due to the estimate from that source being an indirect estimate that uses conversion factors for each forestry product to estimate the total roundwood input that would be required to produce total forest product outputs.

APPENDIX 3: 2013 NEFD QUESTIONNAIRE

SECTION A: FOREST OWNERSHIP

- The information from this section does not go into any publication, but is used only to keep track of forest ownership changes for this and future NEFD surveys.
- If you need to provide details for more than one owner, please attach a sheet of paper with the required details on it for each transaction.

A1 Which best describes the ownership of the majority of your forest? (Tick one category only)

- | | |
|---|--|
| <input type="checkbox"/> privately owned | <input type="checkbox"/> registered public company |
| <input type="checkbox"/> local government | <input type="checkbox"/> central government |
| <input type="checkbox"/> state owned enterprise | <input type="checkbox"/> other (please specify)..... |

Forest and forest land sold

A2 During the period 1 April 2012 to 31 March 2013 did your enterprise sell any forest or forest land to another party?

Include: Land awaiting replanting or harvested land awaiting a land use decision by the new owner.

- | | | |
|------------------------------|---|-----------------|
| <input type="checkbox"/> YES | ▶ | Go to A3 |
| <input type="checkbox"/> NO | ▶ | Go to A5 |

A3 What did your enterprise sell? (Tick one category only)

- | | | |
|--------------------------------------|------------------------------------|---|
| <input type="checkbox"/> Forest only | <input type="checkbox"/> Land only | <input type="checkbox"/> Both forest and land |
|--------------------------------------|------------------------------------|---|

A4 Please give details of area sold:

Name of new owner

New owner's address

Name of forest/land

Territorial authority where forest/land is located

Area of forest or land (hectares)

ha

SECTION A: continued FOREST OWNERSHIP

Forest or forest land acquired

A5 During the period 1 April 2012 to 31 March 2013 did your enterprise acquire new forest or forest land?

Include: Land that is intended for growing plantation forest.

☐ YES ► Go to **A6**

☐ NO ► Go to **A7**

A6 Please give details of area acquired:

Name of previous owner

Previous owner's address

Name of forest/land

Territorial authority where forest/land is located

Area of forest (hectares)

ha

Forest leases and joint ventures

A7 During the period 1 April 2012 to 31 March 2013, did your enterprise harvest forest from a lease or joint venture including forestry rights?

☐ YES ► Go to **A8**

☐ NO ► Go to **Section B**

A8 Will another party now be responsible for future use of the land (i.e. you have handed back the land)?

☐ YES ► Go to **A9**

☐ NO ► Go to **Section B**

A9 Please give details of the other party and the land they will now be responsible for:

Land owner's name

Land owner's address

Name of land

Territorial authority where land is located

Area of land (hectares)

ha

SECTION B: AREA BY AGE DATA AS AT 1 APRIL 2013

Supplying the data electronically

- The data requested in this section can be supplied electronically.
- Please see the supplement 'NOTES FOR RETURNING DATA ELECTRONICALLY' for more information.

Pre-printed pages

- If your enterprise provided us with your forest area by age in the previous survey. This data has been included in your current questionnaire on one or more pre-printed pages.

B1 Are there any pre-printed pages included with your survey?

☐ YES



Check the data printed on each page and update if necessary. If there has been no change, just tick the circle on each page.

☐ NO



Answer questions **B2** to **B8**

- Make a copy of questions **B2** to **B8** for each additional forest area that is not included in the pre-printed pages.

SECTION B: continued AREA BY AGE DATA AS AT 1 APRIL 2013

Instructions for questions B2 to B8

More than one copy of questions B2 to B8 may be required.

A copy of questions B2 to B8 is required for each additional forest area that has a different:

- Territorial authority where the forest is located.
- Rotation number (either first or second and subsequent rotations).
- Tending regime.
- Forest owner's name.
- Species.

More copies required?

For additional copies of B2 to B8 you can either:

- Make a photocopy of the pages provided containing questions B2 to B8.
- Contact survey support on 0800 778 901 or email NEFD@mpi.govt.nz.

B2 Territorial authority where forest is located:
See the attached supplement 'MAP OF WOOD SUPPLY REGION BOUNDARIES AND TERRITORIAL AUTHORITY BOUNDARIES' for guide

B3 Forest owner's name:

B4 Rotation number:

- ☐ First rotation (area planted in forest for the first time)
- ☐ Second or subsequent rotation (area replanted following harvesting of existing planted forest)

B5 Which species is this information for? (Tick one category only)

- ☐ Radiata pine ► Go to **B6**
- ☐ Douglas-fir ► Go to **B7**
- ☐ Cypress species
includes macrocarpa, lusitanica and all other cypress species
- ☐ Other softwoods
includes conifers e.g. pine (excluding radiata pine), fir (excluding douglas-fir), larch or redwood
- ☐ Eucalypt
includes all eucalypt species
- ☐ Other hardwoods
includes broad-leaved trees e.g. wattle, acacia (including Australian blackwood), walnut, oak, poplar, willow, paulownia, birch, alder or elm

Go to **B8**

SECTION B: continued AREA BY AGE DATA AS AT 1 APRIL 2013

Tending regime

- **Intended tending regime:** For example, for young stands that you intend to prune at a later date, please include as "pruned".
- **Production thinning:** Where thinnings are sold, e.g. for posts or chipwood. Don't include thinning to waste.

B6 Radiata pine tending regime or intended tending regime (Tick one in each category)

Pruning

- ☐ Pruned
☐ Unpruned

Thinning

- ☐ Production thinned
☐ No production thinning

B7 Douglas-fir tending regime or intended tending regime (Tick one category only)

- ☐ Production thinned ☐ No production thinning

Area by age information

B8 As at 1 April 2013, give the net stocked area in hectares of trees of each age.

Hectares may be given to one decimal point.

Make sure you write the Total Net Stocked Area once this form is complete.

year planted	age in 2013	net stocked area (ha)	year planted	age in 2013	net stocked area (ha)	year planted	age in 2013	net stocked area (ha)	year planted	age in 2013	net stocked area (ha)		
2012	1		1991	22		1970	43		1949	64			
2011	2		1990	23		1969	44		1948	65			
2010	3		1989	24		1968	45		1947	66			
2009	4		1988	25		1967	46		1946	67			
2008	5		1987	26		1966	47		1945	68			
2007	6		1986	27		1965	48		1944	69			
2006	7		1985	28		1964	49		1943	70			
2005	8		1984	29		1963	50		1942	71			
2004	9		1983	30		1962	51		1941	72			
2003	10		1982	31		1961	52		1940	73			
2002	11		1981	32		1960	53		1939	74			
2001	12		1980	33		1959	54		1938	75			
2000	13		1979	34		1958	55		1937	76			
1999	14		1978	35		1957	56		1936	77			
1998	15		1977	36		1956	57		1935	78			
1997	16		1976	37		1955	58		1934	79			
1996	17		1975	38		1954	59		1933 or earlier	80+			
1995	18		1974	39		1953	60						
1994	19		1973	40		1952	61		TOTAL NET STOCKED AREA				
1993	20		1972	41		1951	62						
1992	21		1971	42		1950	63						

SECTION C: PLANTING AND HARVESTING

- Use a separate form for each Territorial Authority. To obtain more copies of this section call 0800 778 901 or email NEFD@mpi.govt.nz.

C1 Between 1 April 2012 and 31 March 2013, did your enterprise carry out any planting or harvesting?

- ☐ YES ► Go to **C2**
- ☐ NO ► Go to **C8**

Planting

C2 Territorial authority where forest is located:

See the attached supplement 'MAP OF WOOD SUPPLY REGION BOUNDARIES AND TERRITORIAL AUTHORITY BOUNDARIES' for guide

C3 Planting for the year ended 31 December 2012:

	New planted area for year ended Dec 2012	Area replanted for year ended Dec 2012
	Give the area planted on a site not already in use for growing planted production forest (i.e. first rotation)	Give the area of forest which was replanted following harvest
Radiata pine	<input type="text"/> ha	<input type="text"/> ha
Douglas-fir	<input type="text"/> ha	<input type="text"/> ha
Cypress species includes macrocarpa, lusitanica and all other cypress species	<input type="text"/> ha	<input type="text"/> ha
Other softwoods includes conifers e.g. pine (excluding radiata pine), fir (excluding douglas-fir), larch or redwood	<input type="text"/> ha	<input type="text"/> ha
Eucalypt species includes all eucalypt species	<input type="text"/> ha	<input type="text"/> ha
Other hardwoods includes broad-leaved trees e.g. wattle, acacia (including Australian blackwood), walnut, oak, poplar, willow, paulownia, birch, alder or elm	<input type="text"/> ha	<input type="text"/> ha
TOTAL	<input type="text"/> ha	<input type="text"/> ha

C4 Of the total new area planted above in **C3** how much was planted on land that was previously covered by:

Improved pasture land that has been fertilised and contains improved pasture species	<input type="text"/> ha
Unimproved pasture land not fertilised, with no improved pasture species sown	<input type="text"/> ha
Woody vegetation land predominantly covered in bracken gorse, manuka, kanuka, or other woody species	<input type="text"/> ha
Total	<input type="text"/> ha

*Note: This total should be the same as the total new planted area in question **C3**

SECTION C: continued PLANTING AND HARVESTING

Harvesting

C5 Territorial authority where forest is located:

See the attached supplement 'MAP OF WOOD SUPPLY REGION BOUNDARIES AND TERRITORIAL AUTHORITY BOUNDARIES' for guide

C6 Harvesting for the year ended 31 March 2013:

	Area clear felled	Clear felled volume (recovered)	Average age clear felled (area-weighted)	Production thinning volume (recovered)
Note that 1 tonne = about 1m³	include any salvage logging of windthrown or other damaged trees	The recovered volume of wood (inside bark) from harvesting or clear felling (see glossary for details)	The average age of harvested stands weighted by the area of each stand (see glossary for details)	The recovered volume of wood (inside bark) from thinning for commercial use (see glossary for details)
Radiata pine	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³
Douglas-fir	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³
Cypress species	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³
includes macrocarpa, lusitanica and all other cypress species				
Other softwoods	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³
includes conifers e.g. pine (excluding radiata pine), fir (excluding douglas-fir), larch or redwood				
Eucalypt species	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³
includes all eucalypt species				
Other hardwoods	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³
includes broad-leaved trees e.g. wattle, acacia (including Australian blackwood), walnut, oak, poplar, willow, paulownia, birch, alder or elm				
TOTAL	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³

C7 Using the radiata pine clear felled volume in **C6** above, please separate it into log grade sold:

Export logs should be included in the log grades, e.g. if a pruned log is exported as an unpruned grade, please record as "unpruned" (see glossary for definitions).

Volume (recovered) sold as	Pruned logs	Unpruned sawlogs	Pulp/chip logs	Total recovered
	<input type="text"/> m ³	<input type="text"/> m ³	<input type="text"/> m ³	<input type="text"/> m ³

* Note: this total should be equal to the radiata pine clear felled volume in question **C6**

SECTION C: continued PLANTING AND HARVESTING

- If area equals zero then please write zero in the box provided.

C8 On 31 March 2013, what area of harvested land was awaiting replanting?

Include: Area clear felled and intended to be replanted but has not yet been replanted

Include: Area harvested up to four years prior to 31 December 2012

Exclude: Land handed back to landowner as stated in **Section A**

ha

C9 On 31 March 2013, what area of harvested land was awaiting a land use decision?

Include: Area that has been harvested for which a decision on whether to replant or convert has not yet been made

Include: Area harvested up to four years prior to 31 December 2012

Exclude: Area given in question **C8** and land handed back to landowner as stated in **Section A**

ha

C10 Between 1 April 2012 and 31 March 2013, has your enterprise converted any of its land to a non-forest land use?

Include: Land that is in the process of being converted to a non-forest land use

Include: Area harvested up to four years prior to 31 December 2012

Exclude: Land handed back to landowners as stated in **Section A**

☐ YES



Go to **C11**

☐ NO



Go to **Section D**

C11 On 1 April 2012 and 31 March 2013, what area of harvested forest was converted to a non-forest land use?

Include: Mature forest on land that is in the process of being converted

Exclude: Immature forests or forests less than age 20

ha

C12 Between 1 April 2012 and 31 March 2013, what area of immature forest was converted to a non-forest land use?

Include:

- Forests less than age 20 including those on land that is in the process of being converted
- Immature forests such as short rotation eucalypts

Exclude: Mature forests that you talked about in question **C11**

ha

SECTION D: CONFIDENTIALITY AND FEEDBACK

Compulsory question

D1 MPI applies standard confidentiality rules to the data collected in this survey to prevent publication of data where individual owner's data could be identified. However, this can diminish the value of the publication by providing incomplete information in some categories.

Information provided in Section B is combined and published at the territorial authority level. Information provided in Section C is combined and published at the national level. No information provided in Sections A or D is published.

- **If you tick yes**, then data that you have provided in Sections B and C will be published in combined form whether or not it meets MPI's standard confidentiality rules.
- **If you tick no**, and the combined results in any one category that your data contributes to do not meet the standard confidentiality rules, then the results will not be published.

I agree to the Ministry for Primary Industries publishing, in combined form, the forest data that I have supplied for the 2013 NEFD survey.

☐ YES☐ NO

Remember that all details of forest owners are held in confidence and not published.

D2 Approval to access forest ownership details in the event of an emergency or possible biosecurity breach.

I agree to the Ministry for Primary Industries and allied organisations using my name, contact details and total forest area (as reported in this questionnaire) for biosecurity and emergency events only.

☐ YES☐ NO

Name

Signed

Position

Date _____

03 Please provide any comments that would help MPI interpret the information you have provided. MPI also appreciates any feedback you have on how to improve this questionnaire.

Name _____

Position (owner etc)

Telephone number(s)

Email

Date completed

FOREST AREA RECONCILIATION

- MPI uses the following reconciliation table to check that data supplied reconciles. We suggest you use this table to check your responses as this will minimise the amount of post-survey follow up work required.

2012 Information

This information can be found in your previous NEFD return

Net stocked area as at 1 April 2012		<input type="text"/>	ha
Area awaiting replanting on 31 March 2012	+	<input type="text"/>	ha
Area awaiting a land use decision on 31 March 2012	+	<input type="text"/>	ha
TOTAL forest area as at 1 April 2012	=	<input type="text"/>	ha

2013 Information

This information can be found in this questionnaire

Forest area acquired	+	<input type="text"/>	ha	A5
New planted area (first rotation)	+	<input type="text"/>	ha	C3
Forest area sold	-	<input type="text"/>	ha	A4
Forest area another party now responsible for (for example, area handed back)	-	<input type="text"/>	ha	A9
Clear felled area now converted to a non-forest land use	-	<input type="text"/>	ha	C11
Immature forest cleared for conversion to a non-forest land use	-	<input type="text"/>	ha	C12
Re-mapping adjustment	+ / -	<input type="text"/>	ha	Pls circle + or -
Net stocked area as at 1 April 2013	=	<input type="text"/>	ha	B8
Area awaiting replanting on 31 March 2013	+	<input type="text"/>	ha	C8
Area awaiting land use decision on 31 March 2013	+	<input type="text"/>	ha	C9
TOTAL forest area as at 1 April 2013	=	<input type="text"/>	ha	

This is the end of the questionnaire.

Returning the survey

Make sure you have answered **Section D**

Please return all the copies of all the forms you have used, as well as the forms sent to you as part of the questionnaire.

Please return the survey to:

NEFD Survey Support

email: NEFD@mpi.govt.nz

mail: Survey Support, NEFD, Ministry for Primary Industries, PO Box 585, Palmerston North 4440

tel: 0800 778 901

fax: (06) 351 7906

THANK YOU FOR YOUR TIME AND EFFORT

A copy of the complete results from last year's NEFD survey is available free of charge on the Ministry's website:

<http://www.mpi.govt.nz/news-resources/statistics-forecasting/statistical-publications/national-exotic-forest-description>

or by emailing: brand@mpi.govt.nz

APPENDIX 4: NEW PLANTING

IMPUTATION METHODOLOGY

Since 1992, MPI has conducted an annual forest nursery survey. This nursery survey measures the sales of planting stock from commercial forest nurseries. Details of how this survey is operated are described in *Predicting and Measuring New Planting from Nursery Surveys* (Eyre, 1995). An estimate of total national new planting is calculated from the reported numbers of seedlings sold, and estimates of replanting and new planting are then derived. The nursery survey provides the most complete indicator of the area of new forest established each year. The methodology was reviewed in 2003 (Manley *et al*, 2003).

For the calendar years 1992 to 2006 additional new planting areas not directly captured in the NEFD surveys were estimated (imputed) based on the nursery survey and added to the NEFD dataset. No additional new planting was added for the 2007 to 2012 calendar years because of the very low levels of new forest planting that took place in those years.

Table 3.1 compares the new planting figures collected in the NEFD postal surveys with the nursery survey estimates.

The national new planting adjustments were then distributed into territorial authorities using the proportions indicated from the new planting collected in the postal survey. See Table 9.7 (page 28–29).

Within each territorial authority imputed new planting was allocated to NEFD crop types using the postal survey results in the following way:

- The imputed new planting was allocated into species groups based on the relative proportions of each species group within the one to five year age class.
- For radiata pine, the imputed new planting was allocated into the four NEFD tending regimes, based on the relative proportion of each of these tending regimes across all the age classes. All the Douglas-fir imputed new planting was allocated to the “without production thinning” tending regime.

Historically, imputed new planting estimates are revised each year, based on any new information on the area of young forest captured directly in the NEFD survey.

ASSUMPTIONS

The inclusion of imputed new planting into the 2013 NEFD dataset makes the following assumptions.

- The new planting estimates from the nursery seedling surveys are the actual areas of new planting established between 1992 and 2006.
- The imputed new planting in each territorial authority occurs in the same proportion as the new planting captured in the NEFD surveys.
- Imputed new planting for radiata pine is assigned to the tending regimes in the same proportions as the radiata pine new planting captured in the NEFD surveys.

APPENDIX 5: THE NEFD

STEERING COMMITTEE

The NEFD Steering Committee has been constituted by the New Zealand Forest Owners Association and the Ministry for Primary Industries to oversee the preparation of each edition of the National Exotic Forest Description. Members of the Steering Committee during the preparation of this report were:

The Steering Committee's terms of reference are included in Appendix 5.

MEMBER	NOMINATED BY
Ian Hinton (Chairman) Timberlands Ltd	New Zealand Forest Owners Association
Philip Elworthy Rayonier New Zealand Ltd	New Zealand Forest Owners Association
Stuart Anderson Ministry for Primary Industries	Ministry for Primary Industries
John Moore SCION	Ministry for Primary Industries
Alan Bell Alan Bell & Associates	New Zealand Forest Owners Association
Ross Jones Hancock Forest Management	New Zealand Forest Owners Association
Paul Lane Ministry for Primary Industries	Ministry for Primary Industries
Hamish Levack Farm Forestry Association	Ministry for Primary Industries
Annemieke Sherwin Ministry for Primary Industries	Ministry for Primary Industries
Bruce Manley School of Forestry, University of Canterbury	Ministry for Primary Industries
Peter Oliver City Forests	New Zealand Forest Owners Association
John Novis Ministry for Primary Industries	Ministry for Primary Industries
Danny Ren Statistics New Zealand	Ministry for Primary Industries
Peter Ettema Ministry for Primary Industries	Ministry for Primary Industries

APPENDIX 6: THE NEFD STEERING COMMITTEE'S TERMS OF REFERENCE

The New Zealand Forest Owners Association and the Ministry for Primary Industries have agreed that the Steering Committee shall:

- produce a five-year strategic plan, which outlines long term strategies to maintain the quality of planted production forest resource information collected and plans for projects of a longer-term nature such as wood supply forecasts. This strategic plan needs to be submitted through the Director-General for Primary Industries and the Board of the New Zealand Forest Owners Association.
- prepare an annual work plan and budget for NEFD activity, outlining details of statistics to be collected, how they are to be handled, the analysis to be performed and products to be produced during the year. This work plan is to be submitted through the Deputy Director-General for Primary Industries to the Board of the New Zealand Forest Owners Association by 31 May of each year (Review and approval by the Director-General and the Board are required by 30 June of that year).
- prepare an annual report reviewing the year's work and achievements. This report is to be submitted to the Deputy Director-General for Primary Industries and to the Board of the New Zealand Forest Owners Association by 31 July each year.
- monitor user satisfaction with the NEFD outputs through the use of client surveys and through direct discussion with user representatives.
- advise the Ministry for Primary Industries Senior Management Team and the Forest Owners Association Board of any significant issues that the Steering Committee is unable to resolve.
- oversee the preparation of each edition of the *National Exotic Forest Description*.
- commission forecasts of future wood supply from New Zealand's planted production forests.
- ensure that all users are able to subscribe to NEFD reports on an equitable basis, with no barriers to access.
- advertise and promote the availability of NEFD reports.
- sponsor research by suitable bodies to improve the quality of NEFD information.

APPENDIX 7: REFERENCES

AgriQuality New Zealand (2005) *Small Forest Grower Survey Report*.

Eyre, J (1995) Predicting and Measuring New Planting from Nursery Surveys. *New Zealand Journal of Forestry*, August 1995, pp 45–46.

Manley B; Somerville O; Turbitt M; Lane P (2003) Review of New Planting Estimates. *New Zealand Journal of Forestry*, November 2003, pp 34–37.

Manley, B (2011) *2010 Deforestation Survey*. University of Canterbury. <http://www.maf.govt.nz/news-resources/publications>.

Ministry of Agriculture and Forestry (2010) *National Exotic Forest Description as at 1 April 2009*.

Ministry for Primary Industries (2011) *Annual Log and Roundwood Removal Statistics*. <http://www.mpi.govt.nz/news-resources/statistics-forecasting/forestry/annual-log-and-roundwood-removal-statistics.aspx>

Ministry of Forestry (1996) *A National Exotic Forest Description as at 1 April 1995*.

Ministry of Forestry (1996) *NEFD Regional Yield Tables as at 1 April 1995*.

New Zealand Forest Owners Association (2012) *New Zealand Forest Industry Facts & Figures 2009/2010*.

Statistics New Zealand (2009) *2007 Agricultural Production Census*. http://www.stats.govt.nz/browse_for_stats/industry_sectors/agriculture/agriculturalproduction_hotpjun07final.aspx

Statistics New Zealand (2010) *2010 Agricultural Production Survey*. <http://www.stats.govt.nz>

Statistics New Zealand (2011) *2011 Agricultural Production Survey*. <http://www.stats.govt.nz>

APPENDIX 8:

FURTHER INFORMATION

The area data and yield tables and additional information are available from:

Resource Information and Analysis

Ministry for Primary Industries

PO Box 2526

Wellington 6140

Telephone: 0800 00 83 33

Facsimile: 64-4-894 0741

Email: stats_info@mpi.govt.nz

An electronic copy of this report is available on the New Zealand Ministry for Primary Industries internet site: <http://www.mpi.govt.nz>. The tables from this electronic report can be downloaded directly into Microsoft Excel.

Area and yield data are available from the NEFD dataset for any combination of territorial authority area, species, silvicultural regime and age class. The Ministry for Primary Industries will provide such data on request, subject to its standard charging procedures. This information can be provided electronically or in printed form.

For reasons of confidentiality, data on the resources of individual forest growers and data at a lower level of resolution than that published in this report will not be released without the prior written consent of the forest owner(s) concerned.

The Ministry for Primary Industries welcomes any comments on the presentation of this report. These can be directed to the Information and Analysis unit, based at the Wellington address above.