



NEW ZEALAND
FARM FORESTRY ASSOCIATION



MINISTRY OF AGRICULTURE AND FORESTRY >>> 2011

NATIONAL EXOTIC FOREST DESCRIPTION

AS AT 1 APRIL 2011



Ministry of Agriculture and Forestry
Te Manatū Ahuwhenua, Ngāherehere

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ENQUIRIES

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

For more information see page 66 for contacts.

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INTRODUCTION

This is the 28th 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 2011. 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 the 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 of Agriculture and Forestry (see Appendix 4, page 63).

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 of Agriculture and Forestry's website (www.maf.govt.nz). The tables from this 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 institutes in New Zealand. For further clarification of the content of this report, please email stats_info@maf.govt.nz.

OVERVIEW

2

New Zealand's net stocked planted production forests covered an estimated 1.72 million hectares as at 1 April 2011.

The total planted forest standing volume is estimated to be 480 million cubic metres with an average forest stand age (area weighted) of 16.3 years.

Table 2.1 (page 3) provides key national forestry statistics as at 1 April 2011 and compares these with statistics for 2010.

The net stocked area is 18 600 hectares lower than as at 1 April 2010. Over half of this difference can be attributed to harvested areas handed back to land owners. These areas awaited either restocking or a land use decision on 1 April 2011. The remainder of the reduction in net stocked area is a result of re-mapping of forest areas while a small area was recorded as deforested.

Of the total forest area, 70 percent is in the North Island and 30 percent is in the South Island. The Central North Island wood supply region makes up 30 percent of the entire planted production forest estate. 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 v003).

Figure 2.1 shows the age structure of the New Zealand planted forest estate. Very little of the forest area is planted in trees older than 32 years, a reflection of the rotation age of the dominant species, radiata pine. 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 13 to 19 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 2011¹



Note

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

»» TABLE 2.1: NATIONAL EXOTIC FOREST ESTATE STATISTICS

AREA AND STANDING VOLUME STATISTICS

FOREST AREA

Net stocked area (ha)
Harvested area awaiting replanting (ha)²

Total forest area

AS AT 1 APRIL 2010¹

AS AT 1 APRIL 2011

1 738 000

55 300

1 793 300

1 719 400

54 300

1 773 700

Note: The decrease of total forest area between 1 April 2010 and 1 April 2011 should not be taken as a measure of deforestation.

GROWTH CHARACTERISTICS

Standing volume (000 m³)
Average standing volume (m³/ha)
Area-weighted average age (years)

467 063

269

15.9

479 709

279

16.3

AREA BY SPECIES³

Radiata pine (ha)
Douglas-fir (ha)
Cypress species (ha)
Other softwoods (ha)
Eucalypt species (ha)
Other hardwoods (ha)

1 556 000

110 000

10 000

25 000

24 000

13 000

1 545 000

107 000

10 000

24 000

22 000

13 000

RADIATA PINE AREA BY TENDING REGIME

Pruned with production thinning (ha)
Pruned without production thinning (ha)
Unpruned with production thinning (ha)
Unpruned without production thinning (ha)

217 000

708 000

37 000

593 000

210 000

700 000

35 000

599 000

PLANTING STATISTICS

NEW PLANTING⁴

Total estimated new planting (ha)⁵
Replanting (ha)

YEAR ENDED
31 DECEMBER 2009

4 300

32 500

YEAR ENDED
31 DECEMBER 2010

6 000

35 200⁶

HARVESTING STATISTICS⁷

HARVESTING

Area clear felled – all species (ha)
Area clear felled – radiata pine (ha)

43 500

39 200

43 300⁶

39 800⁶

Volume clear felled – all species (000 m³)
Volume production thinned – all species (000 m³)
Total volume removed – all species (000 m³)⁸
Average clear fell yield – all species (m³/ha)

20 588

146

20 734

473

21 725⁶

201⁶

21 926⁶

505⁶

Volume clear felled – radiata pine (000 m³)
Average clear fell yield – radiata pine (m³/ha)
Area-weighted average clear fell age for radiata pine (years)

19 192

489

28.4

20 493⁶

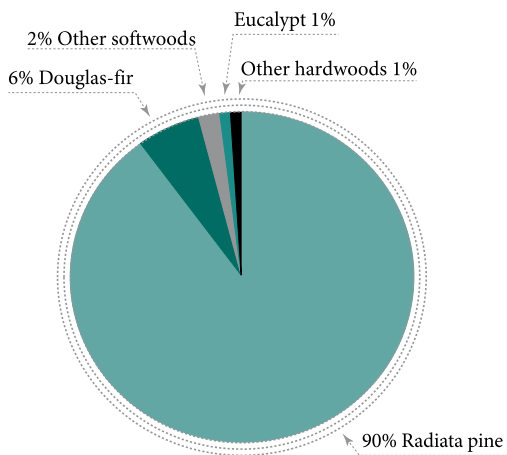
515⁶

28.6

Notes

1. Source: *National Exotic Forest Description as at 1 April 2010*, Ministry of Agriculture and Forestry, 2011.
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.
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 2011 survey only sought data from owners with 1000 hectares of forest or more. These estimates have been rated up based on the 2010 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 2010 and 2011 NEFD surveys and may differ from the roundwood removals estimate as published in the *Annual log and roundwood removal statistics*, Ministry of Agriculture and Forestry. 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.

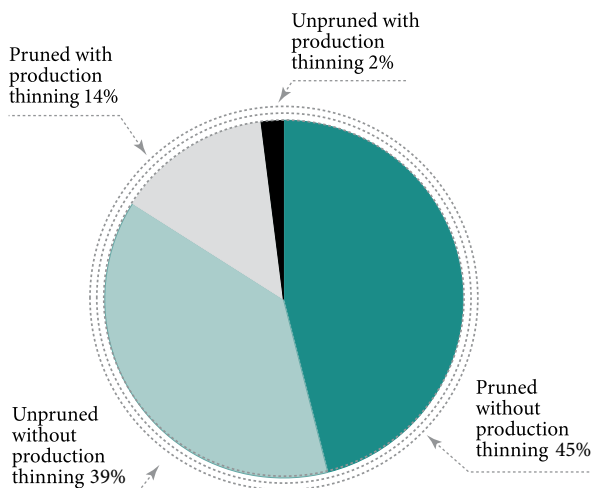
FIGURE 2.2: SPECIES DISTRIBUTION – 2011¹



Note

1. Other softwoods include cypress species.

FIGURE 2.3: RADIATA PINE BY TENDING REGIME – 2011



SPECIES AND SILVICULTURE

As seen in Figure 2.2, radiata pine is the dominant species, making up 90 percent of the planted production forest area. Douglas-fir is the next most common species, making up 6 percent. The remainder of the area is planted in cypress species, eucalypt species, other softwood species and other hardwood species.

Figure 2.3 indicates that about 59 percent (910 000 hectares) of the radiata pine planted forest estate is, or is expected to be, pruned to a height of at least four metres. Approximately 16 percent (146 000 hectares) of pruned radiata pine is older than 25 years, while 15 percent (142 000 hectares) of pruned radiata pine is between 21 and 25 years old. About 69 percent (622 000 hectares) of the pruned radiata pine is 20 years old or under.

The area of production thinned forest has declined. Approximately 16 percent of the radiata pine planted forest currently is, or is expected to be, production thinned. In 1995, 28 percent of the radiata pine forests was, or was intended to be, production thinned. In the

FIGURE 2.4: NEW FOREST PLANTING 1920–2011¹



Note

1. This provisional estimate is compiled from a combination of information collected in a supplementary phone survey of selected large forest owners, 2011 Afforestation Grant Scheme approved planting and East Coast Forestry Project planting. The final estimate of new planting in the December 2011 year will be collected in the 2012 NEFD survey.

Symbol

P Provisional.

Central North Island region production thinning of the radiata pine resource has decreased from 50 percent in 1995 to 24 percent in 2011.

Information collected in the 2011 survey indicates that 56 percent of the forest resource is first-rotation forest, 40 percent is second or subsequent rotation, while information is incomplete for 4 percent of the estate. Of the identified first-rotation forest, 36 percent is aged 15 years or under.

PLANTING

An estimated 6000 hectares of new forest were established in 2010. It is also provisionally estimated that 12 000 hectares of new forest were established during 2011. The increase between 2010 and 2011 is largely attributable to the Emissions Trading Scheme and an encouraging outlook for wood demand, particularly from Asia.

Figure 2.4 shows new forest planting levels since 1920. The average new planting rate over the last 30 years has been 34 000 hectares per year. In the period 1992 to 1998, new planting rates were high – averaging 69 000 hectares per year. Between 1998 and 2009 new planting declined to very low levels. However, since 2009, new planting rates have recorded small annual increases.

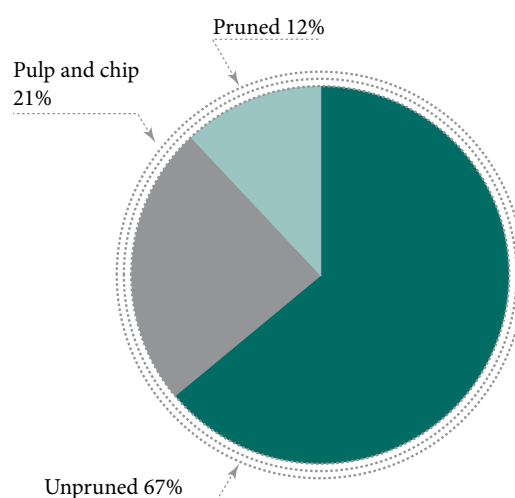
HARVESTING

An estimated harvesting volume of 21.7 million cubic metres¹ for the year ended March 2011 came from clear felling 43 300 hectares of planted forest, and 0.2 million cubic metres from production thinning.

Of the radiata pine harvest, approximately 12 percent of the volume was sold as pruned logs, 67 percent as unpruned logs and 21 percent as pulp and chip logs. An estimated 35 200 hectares of previously clear felled planted forest were replanted in year ended December 2010.

¹ These estimates are based on data collected in the 2011 NEFD survey and may differ from the roundwood removals estimate as published in the *Annual log and roundwood removal statistics*, Ministry of Agriculture and Forestry. 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 2.5: RADIATA PINE HARVEST VOLUME BY LOG TYPE, YEAR ENDED 31 MARCH 2011



DATA

COLLECTION AND ESTIMATION

3

In 2011, NEFD questionnaires were sent to all known forest owners and managers with at least 1000 hectares of planted production forest. The questionnaire used is shown in Appendix 2. Approximately 119 questionnaires were mailed out. A response rate of 100 percent was achieved.

For those owners with less than 1000 hectares of forest, information supplied in the 2010 survey was re-used in the 2011 dataset if it was available. 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 overstatement of area in the older age classes. Conversely, any areas replanted after harvesting since their

last survey return will be understated in the 2011 NEFD dataset.

In addition to the data collected in the NEFD surveys, the results from the 2004 AgriQuality (now AsureQuality) Small Forest Grower Surveys continue to be used in the 2011 NEFD dataset. Details on the methods used by AgriQuality are available in the *Small Forest Grower Survey Report* (AgriQuality NZ, 2005).

The forestry figures released in the *National Exotic Forest Description*, and in particular, new planting estimates, differ from those produced from the Agricultural Production Survey collected by Statistics New Zealand.

»» 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	–

Notes

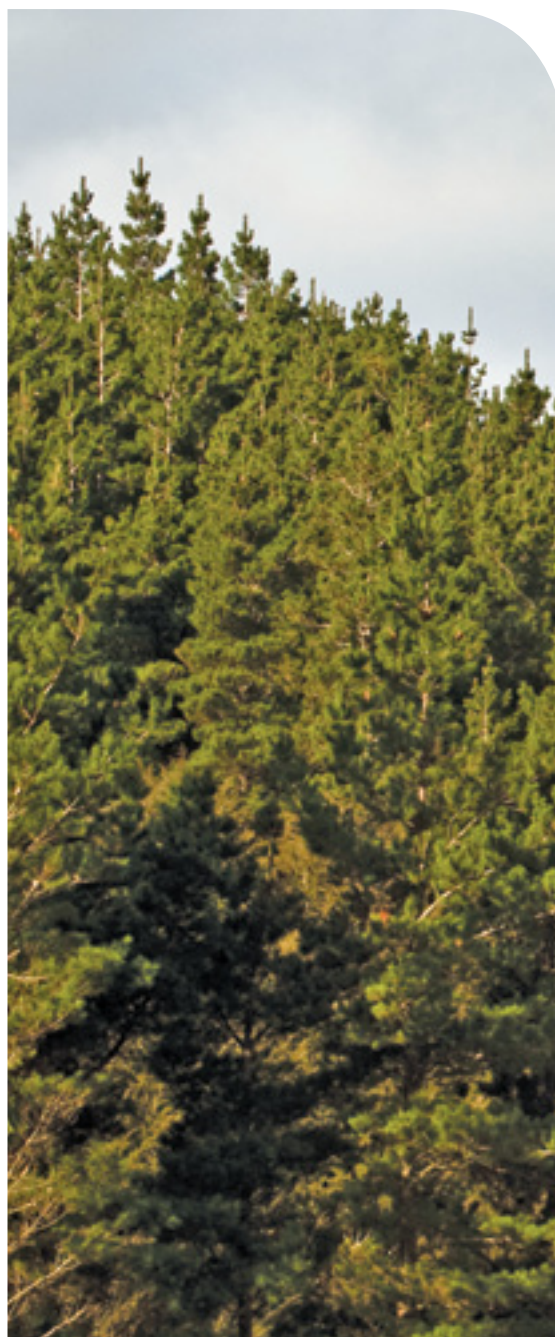
1. As estimated from the planting and nursery surveys undertaken by the Ministry of Agriculture and Forestry.
2. The area of new planting as collected in postal surveys. This does not include the area of restocking.
3. The difference between total new planting and new planting collected in postal surveys.

These surveys use different survey frames and survey designs and have different survey objectives. The target population for the 2011 NEFD survey was all known forest owners and managers with at least 1000 hectares of planted production forest. The target population for the 2011 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 2011 Agricultural Production Survey is available on the Statistics New Zealand website².

The forest areas released in the National Exotic Forest Description may also differ from those produced in the New Zealand Land Use Map 1990-2008 (LUM v003). 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 3. No additional new planting has been added since the 2006 calendar year because of the low levels of new forest planting that have taken place in these years. Table 3.1 shows the comparisons of the new planting figures collected in the postal surveys to the total new planting figures.



² http://www.stats.govt.nz/browse_for_stats/industry_sectors/agriculture-horticulture-forestry/agriculturalproduction_hotjun10prov.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 data 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.

NEW ZEALAND LAND USE MAP

The location of New Zealand's planted forests as identified in New Zealand Land Use Map 1990-2008 (LUM v003) 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 v003) are available on the Ministry for the Environment website³.

The Ministry for the Environment manages the New Zealand Land Use Map 1990-2008 (LUM v003).

³ <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 1000 hectares or more) own 70 percent of the national forest estate. There are approximately 100 forest owners with more than 1000 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 1000 hectares made up 30 percent of the total forest area in 2011. There are approximately 1820 forest owners with between 40 hectares and 999 hectares of forest.

The quality of the data provided by owners with less than 1000 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.

Data provided by owners with less than 1000 hectares 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 MAF and in

»» TABLE 5.1: TOTAL AREA REPRESENTED BY EACH DATA SOURCE IN THE 2011 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+	988	57	25
NEFD survey 1000–9999ha	209	12	72
NEFD survey 40–999ha	253	15	1 821
NEFD survey total¹	1 450	84	1 918
New planting imputation (1992–2006) ²	203	12	..
2004 AgriQuality small forest growers (<40ha) ³	67	4	..
Total⁴	1 719	100	..

Notes

1 Data collected from 2011 NEFD survey only.

2 Adjustment made 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.

4 Individual entries may not add to totals due to rounding.

Symbol

.. Not available.

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. MAF 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 2011 NEFD survey and other NEFD data sources.

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 2010 NEFD area dataset to ensure variation was within acceptable limits.
- For each owner, the data provided in the 2011 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. Prior to importing the updated yield tables into the NEFD database, analysis on the impact of the updated yield tables on standing volume time series needs to be undertaken. The standing volume figures in this report continue to be calculated using the yield tables compiled in 1995.

PLANTING AND HARVESTING ESTIMATES

NEW PLANTING AND REPLANTING ESTIMATES

The 2010 calendar year estimate of total planting is 41 200 hectares. This is made up of 6000 hectares of new planting and 35 200 hectares of replanting. The replanting estimate is based on data collected from forest owners in the 2011 NEFD survey. The new planting estimate is compiled from the NEFD survey, Afforestation Grant Scheme and East Coast Forestry Project.

Approximately 54 300 hectares of previously harvested forest awaited replanting as at 1 April 2011. It is provisionally estimated that 12 000 hectares of new planting occurred during the 2011 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.

HARVESTING DATA

The 2011 NEFD survey estimated that the total volume

»» TABLE 6.1: LAND COVER PRIOR TO NEW PLANTING¹

CALENDAR YEARS	IMPROVED PASTURE (%)	UNIMPROVED PASTURE (%)	OTHER WOODY LAND (%)	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

Note

1. 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.

harvested for the year ended 31 March 2011 was 21.9 million cubic metres. It is estimated that 21.7 million cubic metres came from clear felling 43 300 hectares of planted forest (down 200 hectares from 2010), and 0.2 million cubic metres from production thinning.

The total volume of radiata pine harvested in the year ended 31 March 2011 was 20.5 million cubic metres, from clear felling 39 800 hectares of forest. The area-weighted average clear fell age of radiata pine has increased slightly to 28.6 years in the year ended 31 March 2011. Since 2000, the national area-weighted average clear fell age for radiata pine has increased 1.8 years from 26.8 years.

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 MAF website⁴.

These latest regional forecasts incorporated the harvesting intentions of major forest owners in each region at the time the forecasts were prepared.

⁴ <http://www.maf.govt.nz/news-resources/publications.aspx>

»» FIGURE 6.1: HISTORICAL HARVESTING AREA 1990–2011

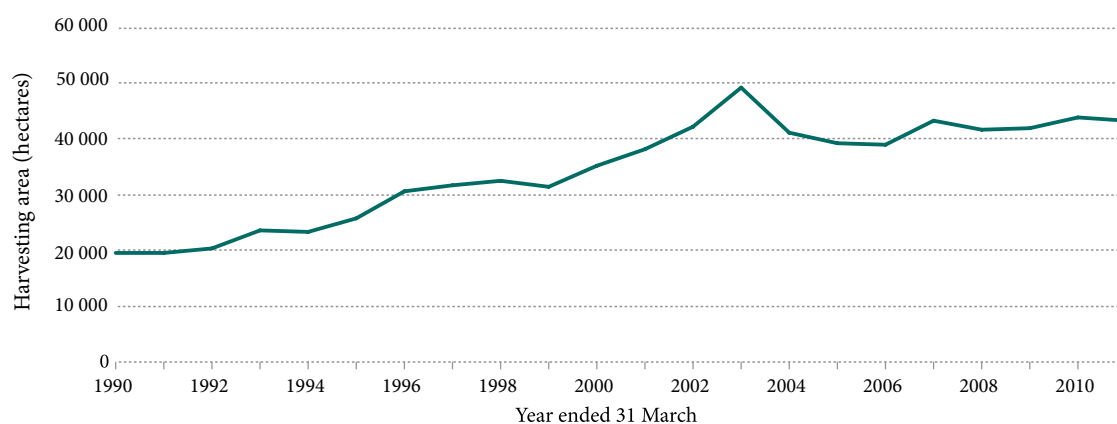
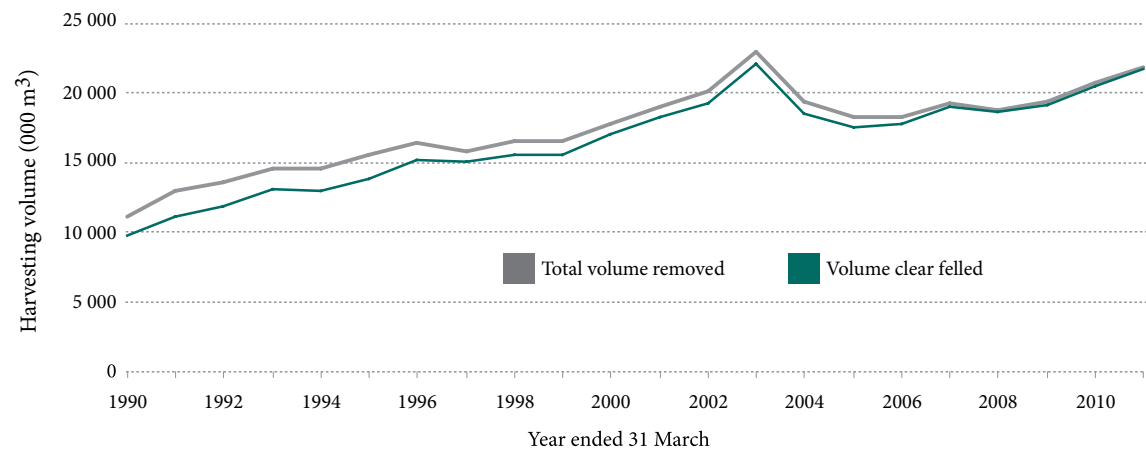


FIGURE 6.2: HISTORICAL HARVESTING VOLUME 1990–2011

WOOD SUPPLY

REGIONS AND TERRITORIAL AUTHORITIES

7

This report is based on 72 district and city councils in New Zealand. The councils are grouped to form 10 wood supply regions of broadly similar growth patterns for radiata pine, representing wood supply and processing catchments. The wood supply regions are: Northland, Auckland, Central North Island, East Coast, Hawke's Bay, Southern North Island, Nelson and Marlborough, Canterbury, West Coast, and Otago and Southland.

The Auckland Council, established in November 2010, will be reflected in the 1 April 2012 report. The Auckland Council combines the functions of the Auckland Regional Council and seven city and district councils. This change necessitated an adjustment to the Wood Supply Regions (WSR) which will be reflected in the 1 April 2012 report.

The Auckland WSR is to be disestablished. The Auckland Council area will form part of the Northland WSR, while the remainder of the Auckland WSR will form part of the Central North Island WSR.

»» 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 Rodney District
Auckland ¹	North Shore City Auckland City Waitakere City Manukau City Papakura District Thames-Coromandel District Hauraki District Franklin District Waikato District Matamata-Piako District
Central North Island	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

1. The Auckland Council will be reflected in the 2012 NEFD report.

»» TABLE 7.1: CONTINUED

WOOD SUPPLY REGIONS	TERRITORIAL AUTHORITIES
East Coast	Gisborne District
Hawke's Bay	Wairoa District Hastings District Napier City Central Hawke's Bay District
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



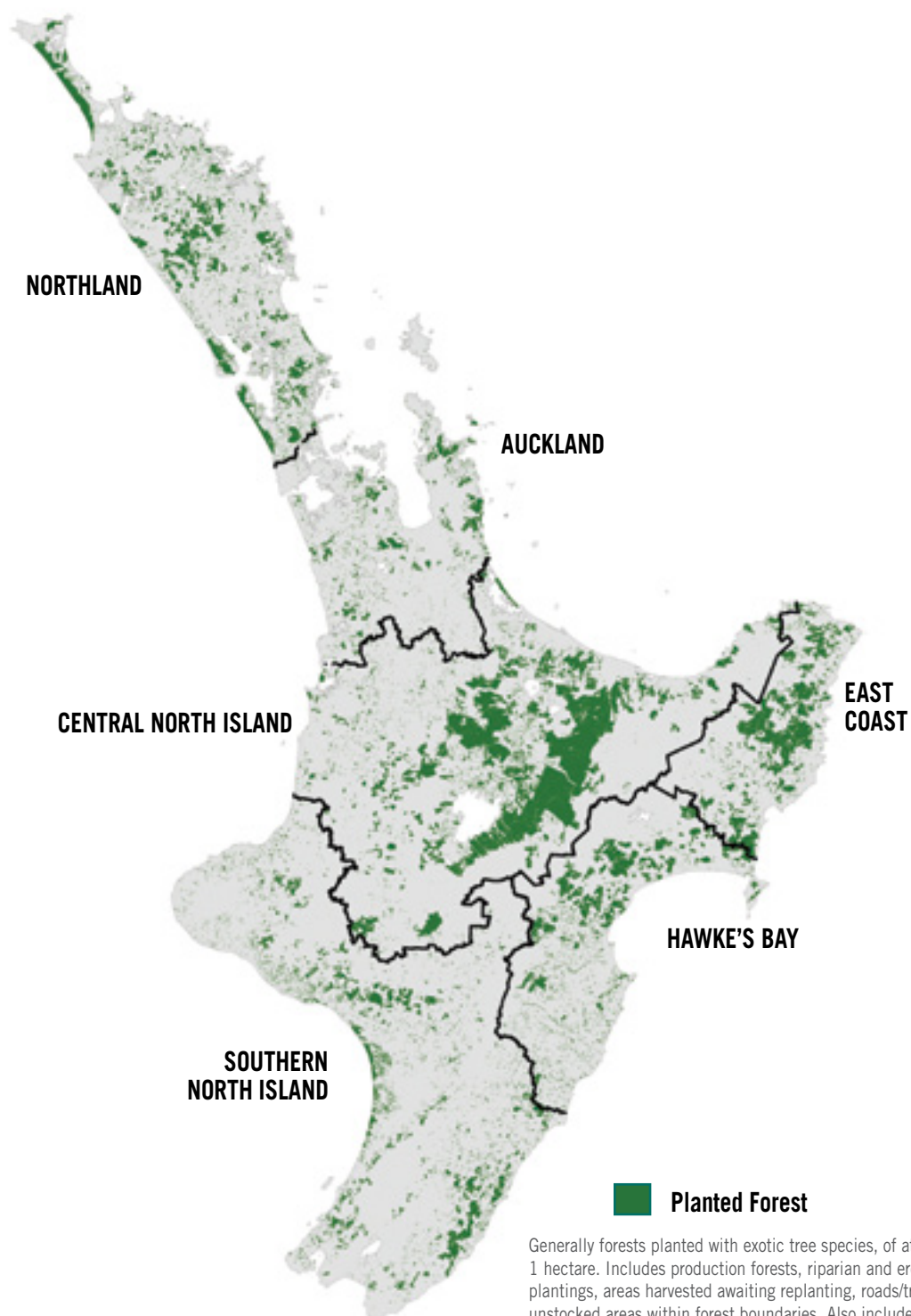
»» FIGURE 7.2: SOUTH ISLAND WOOD SUPPLY REGIONS SHOWING TERRITORIAL AUTHORITY BOUNDARIES



FOREST LOCATION

8

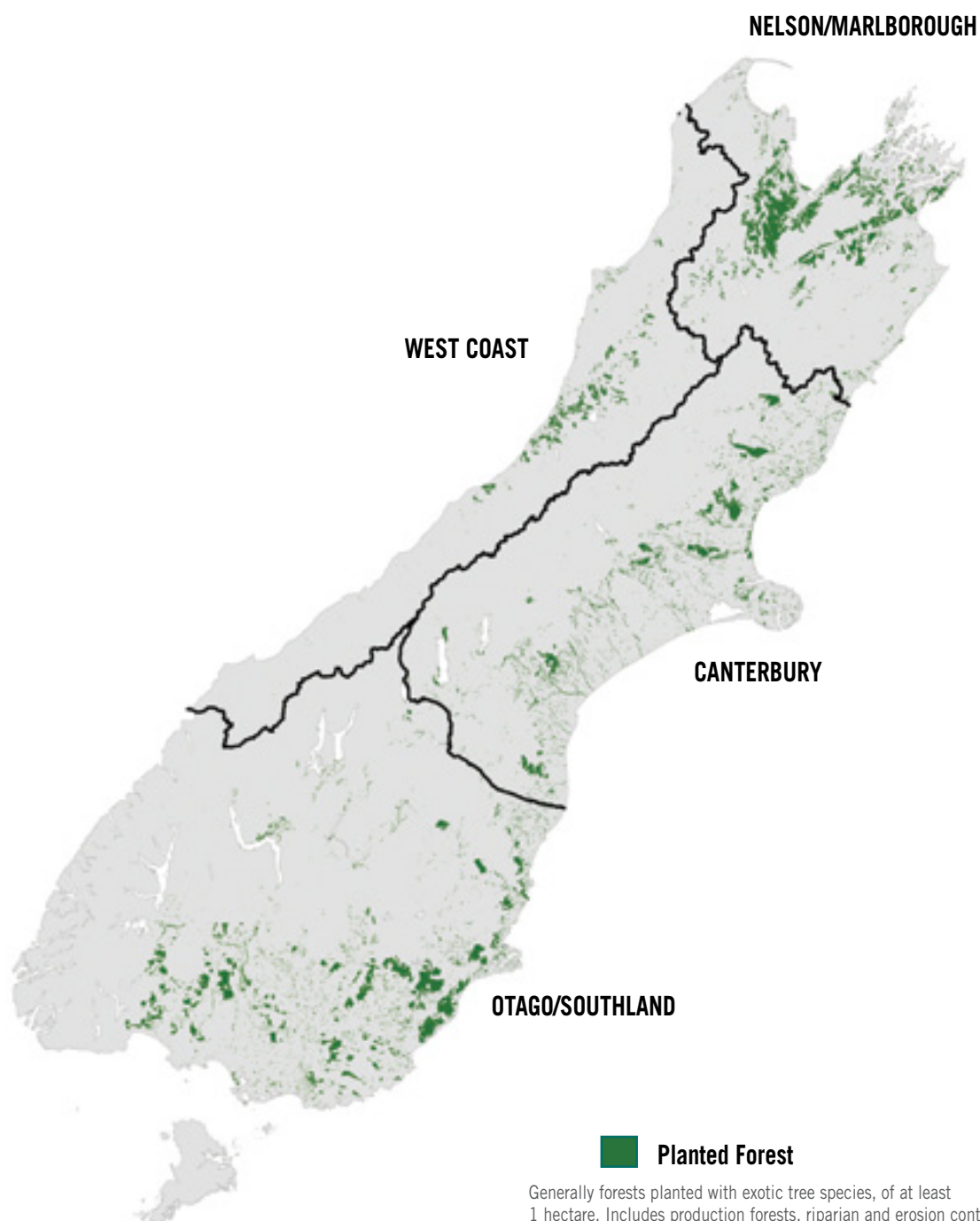
»» FIGURE 8.1: DISTRIBUTION OF PLANTED FORESTS BY WOOD SUPPLY REGION – NORTH ISLAND, 2008



Note: The land use above is only a summary. The full definition, which should be referred to, is located on the Ministry for the Environment's website at: <http://www.mfe.govt.nz/issues/climate/lucas/data/land-use-mapping.html>

lum 1990-2008 v003 nz-data-description

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



Generally forests planted with exotic tree species, of at least 1 hectare. Includes production forests, riparian and erosion control plantings, areas harvested awaiting replanting, roads/tracks and unstocked areas within forest boundaries. Also includes some areas of natural regeneration of indigenous tree species as a result of land management changes after 1 January 1990.

Note: The land use above is only a summary. The full definition, which should be referred to, is located on the Ministry for the Environment's website at: <http://www.mfe.govt.nz/issues/climate/lucas/data/land-use-mapping.html>

lum 1990-2008 v003 nz-data-description

TABULAR SUMMARIES AND GRAPHS

9

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

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.

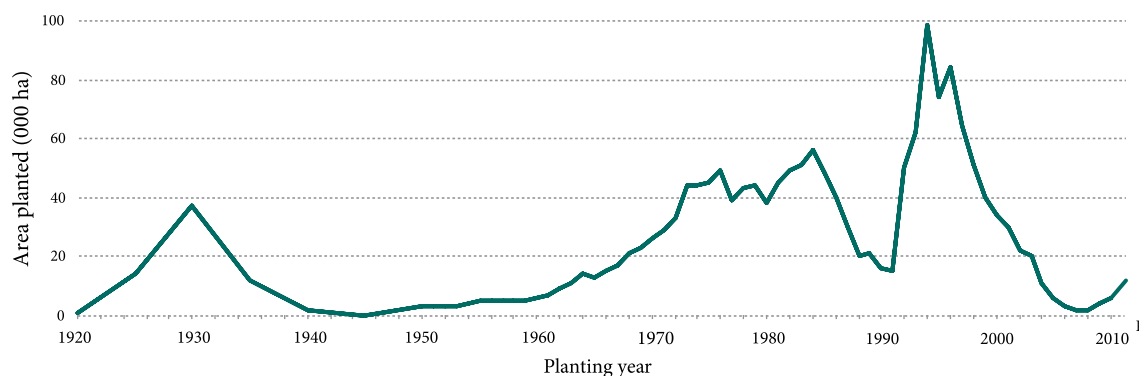
Notes

- 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 2010 NEFD survey, 2010 Afforestation Grant Scheme approved planting (2600 hectares) and East Coast Forestry Project planting (900 hectares). In a separate survey – the 2010 Nursery Survey – it was estimated that 6000 hectares of new planting occurred in the year ended December 2010. 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, 2011 Afforestation Grant Scheme approved planting (3200 hectares) and East Coast Forestry Project approved planting (2500 hectares).

Symbols

- F Finalised.
P Provisional.

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



Note

1. This provisional estimate is compiled from a combination of information collected in a supplementary phone survey of selected large forest owners, 2011 Afforestation Grant Scheme approved planting and East Coast Forestry Project planting. The final estimate of new planting in the December 2011 year will be collected in the 2012 NEFD survey.

Symbol

- P Provisional.

»» TABLE 9.2: PLANTED PRODUCTION FOREST AREA IN NEW ZEALAND¹

YEAR ENDED 31 MARCH	PLANTED FOREST AREA			YEAR ENDED 31 MARCH	PLANTED FOREST AREA		
	STATE ² (000 HA)	PRIVATE ³ (000 HA)	TOTAL (000 HA)		STATE ² (000 HA)	PRIVATE ³ (000 HA)	TOTAL (000 HA)
1921	16	61	77	1979	449	350	799
1926	32	66	98	1980	467	379	846
1931	124	123	247	1981	484	404	888
1936	170	147	317	1982	505	434	939
1941	179	150	329	1983	526	467	993
1946	183	149	332	1984	546	499	1 045
1951	187	151	338	1985	566	529	1 095
1952	189	151	340	1986	583	548	1 131
1953	190	151	341	1987	598	556	1 154
1954	191	151	342	1988	588	626	1 214
1955	192	152	344	1989	607	633	1 240
1956	192	154	346	1990	607	654	1 261
1957	193	155	348	1991	361	928	1 289
1958	194	156	350	1992	356	952	1 308
1959	195	157	352	1993	262	1 066	1 328
1960	195	157	352	1994	267	1 121	1 388
1961	199	159	358	1995	334	1 144	1 478
1962	213	149	362	1996	330	1 212	1 542
1963	220	152	372	1997	169	1 461	1 630
1964	228	156	384	1998	169	1 510	1 679
1965	235	160	395	1999	161	1 570	1 731
1966	241	163	404	2000	151	1 618	1 769
1967	247	167	414	2001	151	1 648	1 799
1968	257	172	429	2002	148	1 666	1 814
1969	270	177	447	2003	146	1 681	1 827
1970	283	182	465	2004	143	1 679	1 822
1971	294	189	483	2005	135	1 676	1 811
1972	306	202	508	2006	125	1 675	1 800
1973	323	215	538	2007	125	1 665	1 790
1974	343	234	577	2008	127	1 634	1 761
1975	362	254	616	2009	128	1 623	1 751
1976	385	272	657	2010	123	1 615	1 738
1977	406	299	705	2011	119	1 600	1 719
1978	425	324	749				

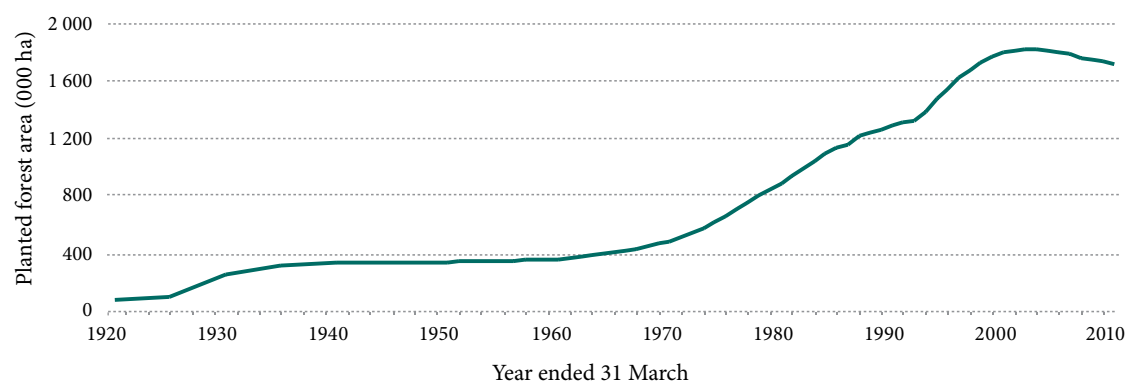
Sources

Until 1987, the statistics were compiled by the New Zealand Forest Service. The figures for 1987 onwards are estimates from NEFD surveys.

Notes

1. The total planted forest areas have been estimated independently from new planted forest areas. The areas in this table are not the accumulated sums of new forest planting shown in Table 9.1.
2. Prior to 1987, "State" refers principally to the forests planted or managed by the New Zealand Forest Service. Since 1987, "State" refers primarily to the forests owned or managed by state-owned enterprises and the Māori lease forests managed by the Ministry of Agriculture and Forestry.
3. Private afforestation figures are based on incomplete historical data, and considerable estimation has taken place.

»» FIGURE 9.2: PLANTED PRODUCTION FOREST AREA IN NEW ZEALAND



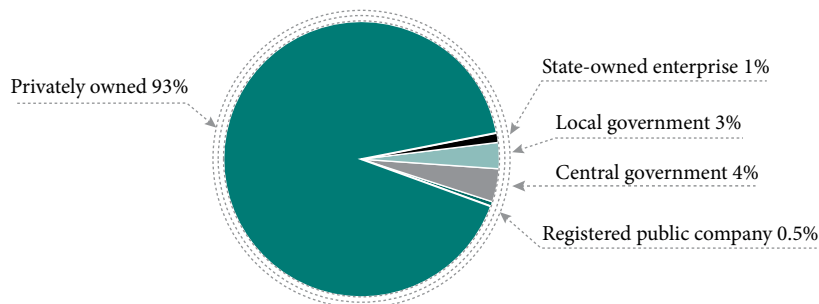
»» TABLE 9.3: FOREST OWNERSHIP AS AT 1 APRIL 2011¹

OWNERSHIP CATEGORY ²	ESTIMATED TOTAL AREA ³ (HA)	PERCENT OF ESTIMATED TOTAL
Registered public company ⁴	8 531	0.5
Privately owned ^{4, 5}	1 591 848	93
State-owned enterprise	10 566	1
Local government	46 232	3
Central government ⁶	62 257	4
New Zealand total⁷	1 719 434	100

Notes

1. The area of forest owned or managed by major forest owners can be found in the New Zealand Forest Industry booklet, *Facts & Figures 2010/2011*, page 12 (see <http://www.nzfoa.org.nz/images/stories/pdfs/fandf2011web.pdf>).
2. Ownership is based solely on the ownership of the forest irrespective of the ownership of the land.
3. Net stocked planted production forest area.
4. Significant changes in forest ownership have occurred since 2003, resulting in large areas of forest previously owned by public companies now being privately owned.
5. "Privately owned" includes all privately owned forests. The legal entities included in this category are private companies, partnerships, individuals and trusts, which include Maori trusts and incorporations.
6. "Central government" forests are predominantly Crown-owned forests on Maori leasehold land. These forests are managed by the Ministry of Agriculture and Forestry.
7. Individual entries may not add to total due to rounding.

»» FIGURE 9.3: FOREST OWNERSHIP



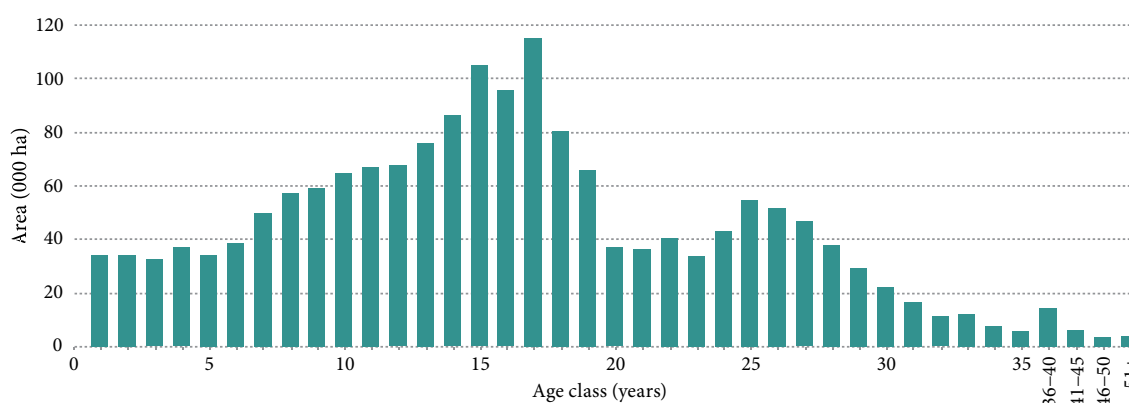
»» TABLE 9.4: FOREST AREA¹ BY ANNUAL AGE CLASS, AS AT 1 APRIL 2011

AGE	AREA (HA)	AGE	AREA (HA)	AGE	AREA (HA)
1	34 432	29	29 649	57	95
2	34 257	30	22 383	58	111
3	32 770	31	16 290	59	129
4	36 870	32	11 072	60	49
5	34 468	33	11 828	61	379
6	38 972	34	7 503	62	75
7	49 761	35	5 827	63	58
8	57 624	36	5 056	64	45
9	59 297	37	3 225	65	16
10	65 248	38	2 388	66	34
11	67 295	39	2 169	67	72
12	67 584	40	1 468	68	32
13	76 138	41	1 752	69	20
14	86 411	42	1 573	70	24
15	105 264	43	1 231	71	148
16	95 849	44	969	72	45
17	115 552	45	887	73	68
18	80 694	46	949	74	23
19	66 032	47	1 126	75	24
20	37 076	48	498	76	40
21	36 766	49	466	77	38
22	40 484	50	325	78	74
23	33 770	51	668	79	142
24	43 084	52	338	80+	580
25	54 743	53	184		
26	51 539	54	163		
27	46 891	55	88		
28	38 065	56	102		
				New Zealand total	
				1 719 434	

Note

1. Net stocked planted production forest area.

»» FIGURE 9.4: 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 9.5: NUMBER OF FOREST OWNERS BY NATIONAL SIZE CLASS¹, AS AT APRIL 2011

WOOD SUPPLY REGION	NATIONAL SIZE CLASS					
	<40 HA	40–99 HA	100–499 HA	500–999 HA	1 000–9 999 HA	10 000+ HA
Northland	..	134	76	10	15	6
Auckland	..	40	30	5	9	4
Central North Island	..	85	69	9	16	11
East Coast	..	56	50	6	16	9
Hawke's Bay	..	68	40	4	7	10
Southern North Island	..	234	169	15	15	6
Nelson and Marlborough	..	198	115	12	11	4
West Coast	..	8	5	1	1	1
Canterbury	..	84	82	3	12	2
Otago and Southland	..	148	90	8	12	7
New Zealand total²	..	1 049	708	64	72	25

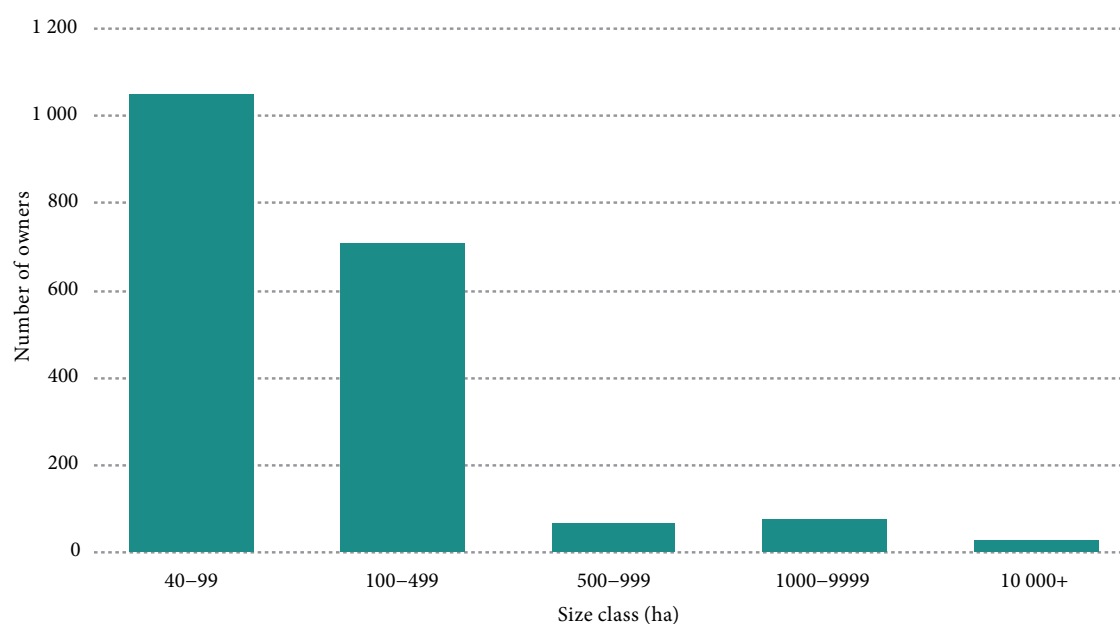
Notes

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 class.

Symbol

.. Not available.

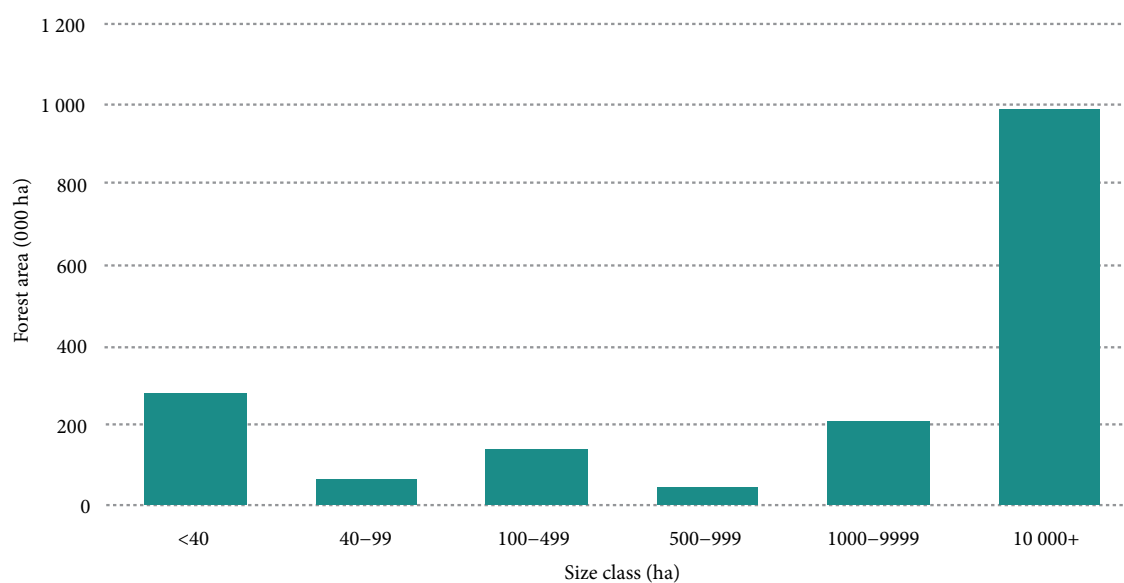
»» FIGURE 9.5: NUMBER OF FOREST OWNERS BY NATIONAL SIZE CLASS



»» TABLE 9.6: FOREST AREA BY FOREST OWNER NATIONAL SIZE CLASS, AS AT 1 APRIL 2011

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	31 716	8 356	13 381	6 241	32 014	97 792	189 500
Auckland	10 493	2 382	5 311	1 941	14 972	20 346	55 445
Central North Island	49 868	5 080	14 219	4 824	34 651	404 777	513 419
East Coast	16 568	3 245	11 374	4 360	35 437	85 422	156 406
Hawke's Bay	21 591	4 114	7 984	2 137	9 147	83 171	128 144
Southern North Island	44 359	14 341	33 357	8 335	25 431	42 875	168 698
Nelson and Marlborough	24 261	11 960	19 589	8 562	19 056	83 716	167 144
West Coast	2 740	489	635	617	182	27 922	32 585
Canterbury	32 573	5 058	14 307	1 554	17 272	32 558	103 322
Otago and Southland	42 906	9 207	17 196	5 163	21 220	109 079	204 771
New Zealand total	277 075	64 232	137 353	43 734	209 382	987 658	1 719 434

»» FIGURE 9.6: FOREST AREA BY NATIONAL SIZE CLASS



»» TABLE 9.7: FOREST AREA¹ COLLECTED BY POSTAL SURVEY AND ADJUSTMENTS FOR NEW PLANTING, AS AT 1 APRIL 2011

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	79 542	8 087	87 629
Whangarei District	28 790	3 704	32 494
Kaipara District	34 124	4 829	38 953
Rodney District	26 252	4 172	30 424
Region total	168 708	20 792	189 500
AUCKLAND WOOD SUPPLY REGION			
North Shore City	14	0	14
Waitakere City	7	2	9
Auckland City	0	0	0
Manukau City	5 084	596	5 680
Papakura District	206	0	206
Franklin District	4 863	1 475	6 338
Thames-Coromandel District	21 706	1 376	23 082
Hauraki District	2 330	907	3 237
Waikato District	13 188	2 294	15 482
Matamata-Piako District	1 043	354	1 397
Region total	48 441	7 004	55 445
CENTRAL NORTH ISLAND WOOD SUPPLY REGION			
Hamilton City	1	0	1
Waipa District	1 661	1 057	2 718
Otorohanga District	2 718	2 327	5 045
South Waikato District	64 676	1 579	66 255
Waitomo District	18 965	6 759	25 724
Taupo District	164 420	6 713	171 133
Tauranga District	86	39	125
Ruapehu District	37 821	8 359	46 180
Western Bay of Plenty District	20 465	3 089	23 554
Rotorua District	45 682	5 272	50 954
Kawerau District	31	3	34
Whakatane District	100 854	4 283	105 137
Opotiki District	14 311	2 248	16 559
Region total	471 691	41 728	513 419
EAST COAST WOOD SUPPLY REGION			
Gisborne District	141 888	14 518	156 406
Region total	141 888	14 518	156 406
HAWKE'S BAY WOOD SUPPLY REGION			
Wairoa District	46 762	5 561	52 323
Hastings District	54 584	5 930	60 514
Napier City	139	0	139
Central Hawke's Bay District	10 792	4 376	15 168
Region total	112 277	15 867	128 144
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION			
New Plymouth District	3 318	760	4 078
Stratford District	5 237	1 165	6 402
South Taranaki District	7 765	2 146	9 911
Wanganui District	25 920	3 584	29 504
Rangitikei District	17 981	3 593	21 574
Manawatu District	4 805	2 033	6 838
Palmerston North City	2 003	297	2 300
Horowhenua District	5 685	1 204	6 889
Tararua District	11 747	2 926	14 673
Kapiti Coast District	2 941	755	3 696
Upper Hutt City	5 758	646	6 404
Porirua City	1 858	54	1 912
Wellington City	445	38	483
Lower Hutt City	272	27	299
Masterton District	29 573	3 676	33 249
Carterton District	9 484	2 686	12 170
South Wairarapa District	6 124	2 192	8 316
Region total	140 916	27 782	168 698
North Island total	1 083 921	127 691	1 211 612

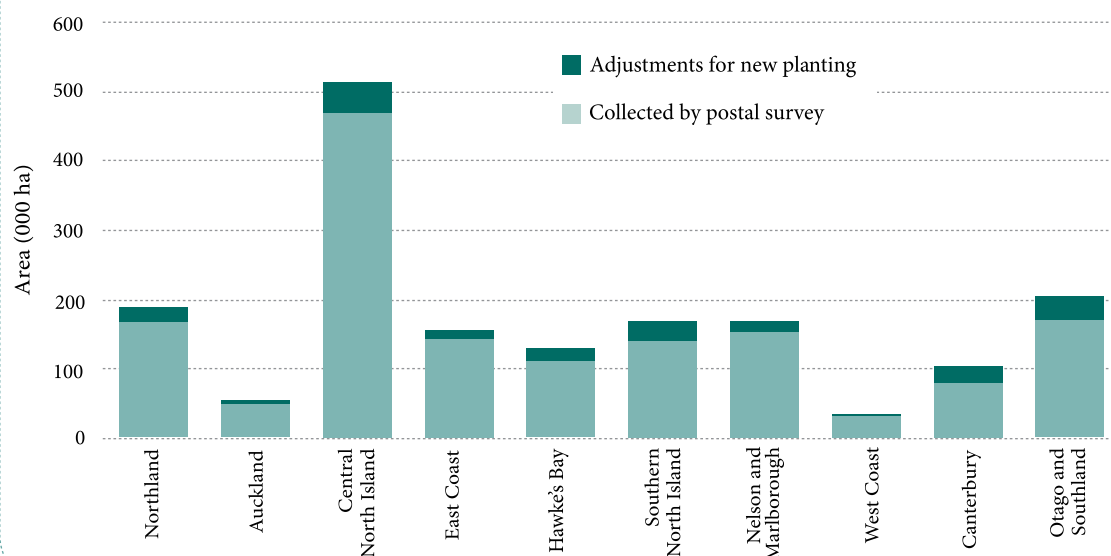
»» TABLE 9.7 CONTINUED...

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	80 334	5 706	86 040
Nelson City	8 469	532	9 001
Marlborough District	61 462	9 320	70 782
Kaikoura District	1 113	208	1 321
Region total	151 378	15 766	167 144
WEST COAST WOOD SUPPLY REGION			
Buller District	3 312	323	3 635
Grey District	13 941	296	14 237
Westland District	13 645	1 068	14 713
Region total	30 898	1 687	32 585
CANTERBURY WOOD SUPPLY REGION			
Hurunui District	32 428	6 312	38 740
Waimakariri District	8 935	3 118	12 053
Selwyn District	8 267	2 252	10 519
Christchurch City	6 264	3 638	9 902
Ashburton District	2 884	922	3 806
Mackenzie District	3 765	1 158	4 923
Timaru District	9 343	2 521	11 864
Waimate District	7 519	3 996	11 515
Region total	79 405	23 917	103 322
OTAGO AND SOUTHLAND WOOD SUPPLY REGION			
Waitaki District	14 419	3 884	18 303
Queenstown-Lakes District	627	130	757
Central Otago District	5 520	1 771	7 291
Dunedin City	12 837	1 374	14 211
Clutha District	69 536	11 741	81 277
Southland District	65 128	12 870	77 998
Gore District	2 436	1 810	4 246
Invercargill City	589	99	688
Region total	171 092	33 679	204 771
South Island total	432 773	75 049	507 822
New Zealand total	1 516 694	202 740	1 719 434

Notes

1. Net stocked planted production forest area.
2. Comprises the combined results from the 2011 NEFD survey and a small forest grower survey conducted by AgriQuality New Zealand.
3. Adjustments made to the area of new forest planted between 1992 and 2006. New planting imputation is discussed on page 7.

»» FIGURE 9.7: TOTAL FOREST AREA BY WOOD SUPPLY REGION



»» TABLE 9.8: AREA¹, STANDING VOLUME AND AREA-WEIGHTED AVERAGE AGE BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

TERRITORIAL AUTHORITY	AREA (HA)	STANDING VOLUME (000 M ³)	AREA-WEIGHTED AVERAGE AGE (YEARS)
NORTHLAND WOOD SUPPLY REGION			
Far North District	87 629	32 901	18.50
Whangarei District	32 494	13 192	18.47
Kaipara District	38 953	15 162	17.99
Rodney District	30 424	8 263	14.18
Region total	189 500	69 518	17.69
AUCKLAND WOOD SUPPLY REGION			
North Shore City	14	6	36.79
Waitakere City	9	3	23.89
Auckland City	0	0	0.00
Manukau City	5 680	1 473	16.46
Papakura District	206	126	27.73
Franklin District	6 338	1 858	19.40
Thames-Coromandel District	23 082	6 151	15.38
Hauraki District	3 237	831	17.20
Waikato District	15 482	3 055	14.07
Matamata-Piako District	1 397	294	13.97
Region total	55 445	13 798	15.71
CENTRAL NORTH ISLAND WOOD SUPPLY REGION			
Hamilton City	1	1	29.00
Waipa District	2 718	861	16.60
Otorohanga District	5 045	1 464	16.10
South Waikato District	66 255	19 745	14.65
Waitomo District	25 724	5 883	13.49
Taupo District	171 133	54 721	16.57
Tauranga District	125	37	15.88
Ruapehu District	46 180	15 992	17.39
Western Bay of Plenty District	23 554	7 231	16.36
Rotorua District	50 954	13 651	14.85
Kawerau District	34	10	12.65
Whakatane District	105 137	30 340	15.48
Opotiki District	16 559	8 184	21.67
Region total	513 419	158 121	16.00
EAST COAST WOOD SUPPLY REGION			
Gisborne District	156 406	51 957	17.07
Region total	156 406	51 957	17.07
HAWKE'S BAY WOOD SUPPLY REGION			
Wairoa District	52 323	11 961	15.02
Hastings District	60 514	13 701	14.76
Napier City	139	55	21.39
Central Hawke's Bay District	15 168	3 960	16.39
Region total	128 144	29 677	15.06
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION			
New Plymouth District	4 078	1 154	16.26
Stratford District	6 402	2 343	19.20
South Taranaki District	9 911	3 231	17.23
Wanganui District	29 504	8 333	15.71
Rangitikei District	21 574	5 872	16.09
Manawatu District	6 838	2 497	18.82
Palmerston North City	2 300	943	18.27
Horowhenua District	6 889	2 030	16.89
Tararua District	14 673	4 445	16.61
Kapiti Coast District	3 696	1 405	18.69
Upper Hutt City	6 404	2 663	19.37
Porirua City	1 912	974	21.97
Wellington City	483	149	17.50
Lower Hutt City	299	159	24.65
Masterton District	33 249	11 246	17.43
Carterton District	12 170	3 383	15.61
South Wairarapa District	8 316	2 532	16.87
Region total	168 698	53 359	16.96
North Island total	1 211 612	376 430	16.42

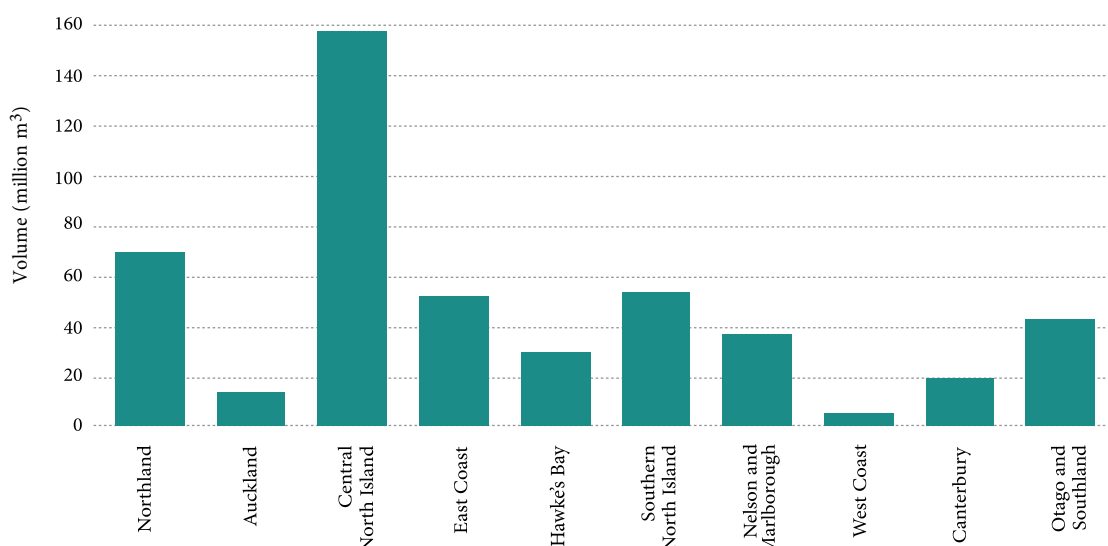
»» TABLE 9.8 CONTINUED...

TERRITORIAL AUTHORITY	AREA (HA)	STANDING VOLUME (000 M ³)	AREA-WEIGHTED AVERAGE AGE (YEARS)
NELSON AND MARLBOROUGH WOOD SUPPLY REGION			
Tasman District	86 040	17 371	15.05
Nelson City	9 001	1 765	14.06
Marlborough District	70 782	17 046	17.11
Kaikoura District	1 321	337	18.21
Region total	167 144	36 519	15.89
WEST COAST WOOD SUPPLY REGION			
Buller District	3 635	695	16.95
Grey District	14 237	2 791	16.27
Westland District	14 713	1 766	14.06
Region total	32 585	5 252	15.35
CANTERBURY WOOD SUPPLY REGION			
Hurunui District	38 740	7 046	15.89
Waimakariri District	12 053	2 536	17.09
Selwyn District	10 519	2 386	19.26
Christchurch City	9 902	1 653	17.70
Ashburton District	3 806	776	18.46
Mackenzie District	4 923	876	18.73
Timaru District	11 864	1 927	16.63
Waimate District	11 515	1 895	16.70
Region total	103 322	19 095	16.95
OTAGO AND SOUTHLAND WOOD SUPPLY REGION			
Waitaki District	18 303	4 095	15.79
Queenstown-Lakes District	757	299	23.77
Central Otago District	7 291	1 634	18.53
Dunedin City	14 211	4 355	19.70
Clutha District	81 277	16 085	15.05
Southland District	77 998	14 784	14.92
Gore District	4 246	910	15.39
Invercargill City	688	251	21.78
Region total	204 771	42 413	15.58
South Island total	507 822	103 279	15.95
New Zealand total	1 719 434	479 709	16.28

Note

1. Net stocked planted production forest area.

»» FIGURE 9.8: STANDING VOLUME BY WOOD SUPPLY REGION



»» TABLE 9.9: FOREST AREA¹ BY AGE CLASS AND TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	9 588	10 591	12 361	15 351	15 189	17 746	5 577	1 049	128	15	34	87 629
Whangarei District	2 451	3 534	6 130	6 231	6 016	6 835	945	188	140	13	11	32 494
Kaipara District	2 495	3 711	9 120	7 455	10 868	4 580	458	179	54	11	22	38 953
Rodney District	3 870	7 198	8 313	5 934	1 829	1 335	1 435	355	120	15	20	30 424
Region total	18 404	25 034	35 924	34 971	33 902	30 496	8 415	1 771	442	54	87	189 500
Auckland Wood Supply Region												
North Shore City	0	0	0	0	6	0	3	1	0	0	4	14
Waitakere City	0	0	1	3	1	1	2	1	0	0	0	9
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	285	1 192	1 009	2 072	291	515	81	218	17	0	0	5 680
Papakura District	12	0	4	30	20	29	81	29	0	0	1	206
Franklin District	149	422	1 166	2 322	1 357	610	118	69	18	37	70	6 338
Thames-Coromandel District	5 138	4 261	3 115	3 465	1 930	3 517	1 210	240	66	38	102	23 082
Hauraki District	0	297	924	1 275	498	195	36	6	0	0	6	3 237
Waikato District	1 210	2 736	4 743	5 098	1 174	434	62	8	12	4	1	15 482
Matamata-Piako District	385	179	160	420	97	76	73	4	0	0	3	1 397
Region total	7 179	9 087	11 122	14 685	5 374	5 377	1 666	576	113	79	187	55 445
Central North Island Wood Supply Region												
Hamilton City	0	0	0	0	0	1	0	0	0	0	0	1
Waipa District	5	188	1 335	696	143	152	166	27	4	0	2	2 718
Otorohanga District	0	1 268	1 138	1 753	281	372	81	18	132	0	2	5 045
South Waikato District	7 815	13 730	14 566	14 255	11 160	4 346	196	28	48	1	110	66 255
Waitomo District	4 788	4 311	7 039	6 532	1 078	1 017	242	267	316	130	4	25 724
Taupo District	22 055	32 426	31 796	19 245	28 124	28 068	7 186	1 360	814	16	43	171 133
Tauranga District	0	13	50	39	17	6	0	0	0	0	0	125
Ruapehu District	2 181	4 168	17 848	8 118	5 783	6 085	1 716	47	97	1	136	46 180
Western Bay of Plenty District	2 189	3 101	4 813	6 556	4 876	1 556	293	28	24	C	C	23 554
Rotorua District	7 249	11 376	11 606	7 910	7 926	2 357	1 158	793	344	20	215	50 954
Kawerau District	0	0	34	0	0	0	0	0	0	0	0	34
Whakatane District	13 341	16 640	26 291	21 530	13 525	10 188	2 138	890	452	C	C	105 137
Opotiki District	1 022	1 367	1 302	1 021	5 092	5 996	749	10	0	0	0	16 559
Region total	60 645	88 588	117 818	87 655	78 005	60 144	13 925	3 468	2 231	338	602	513 419
East Coast Wood Supply Region												
Gisborne District	10 104	21 714	36 349	43 808	18 670	19 155	4 062	1 234	1 146	113	51	156 406
Region total	10 104	21 714	36 349	43 808	18 670	19 155	4 062	1 234	1 146	113	51	156 406
Hawke's Bay Wood Supply Region												
Wairoa District	6 299	9 712	10 964	15 633	1 813	6 380	1 260	71	121	42	28	52 323
Hastings District	6 959	12 487	13 304	17 082	4 011	5 091	1 044	381	76	74	5	60 514
Napier City	0	0	45	29	6	53	1	5	0	0	0	139
Central Hawke's Bay District	553	1 422	5 914	4 752	1 045	806	373	124	69	38	72	15 168
Region total	13 811	23 621	30 227	37 496	6 875	12 330	2 678	581	266	154	105	128 144
Southern North Island Wood Supply Region												
New Plymouth District	176	641	1 146	1 209	515	220	137	30	2	0	2	4 078
Stratford District	352	557	670	3 186	333	814	49	10	230	198	3	6 402
South Taranaki District	37	1 020	2 728	4 040	1 291	458	270	35	22	5	5	9 911
Wanganui District	2 653	3 880	6 483	10 193	4 188	1 621	261	57	152	0	16	29 504
Rangitikei District	568	2 541	9 113	5 937	1 513	826	387	359	261	52	17	21 574
Manawatu District	103	819	1 008	3 010	489	724	534	107	27	4	13	6 838
Palmerston North City	489	164	181	699	70	108	500	89	0	0	0	2 300
Horowhenua District	768	1 108	656	2 821	519	447	336	90	78	35	31	6 889
Tararua District	409	1 638	5 039	4 970	840	1 054	477	177	52	13	4	14 673
Kapiti Coast District	70	372	711	1 292	521	525	188	14	3	0	0	3 696
Upper Hutt City	653	1 009	977	741	972	1 214	540	55	200	19	24	6 404
Porirua City	0	55	34	805	721	221	13	60	3	0	0	1 912
Wellington City	0	36	53	308	70	14	2	0	0	0	0	483
Lower Hutt City	0	10	52	50	15	97	61	14	0	0	0	299
Masterton District	2 474	4 119	7 363	10 686	2 637	3 990	1 178	308	439	37	18	33 249
Carterton District	962	1 193	5 126	2 316	1 124	629	573	127	116	4	0	12 170
South Wairarapa District	143	1 380	2 432	2 689	775	387	305	122	76	6	1	8 316
Region total	9 857	20 542	43 772	54 952	16 593	13 349	5 811	1 654	1 661	373	134	168 698
North Island total	120 000	188 586	275 212	273 567	159 419	140 851	36 557	9 284	5 859	1 111	1 166	1 211 612

>>> 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 and Marlborough Wood Supply Region												
Tasman District	14 841	15 073	15 012	20 338	8 746	7 189	3 438	856	356	77	114	86 040
Nelson City	2 239	1 559	1 349	1 803	630	1 073	175	97	38	36	2	9 001
Marlborough District	6 739	8 280	13 605	20 951	8 898	8 896	2 388	753	215	46	11	70 782
Kaikoura District	9	137	465	439	50	90	65	22	38	6	0	1 321
Region total	23 828	25 049	30 431	43 531	18 324	17 248	6 066	1 728	647	165	127	167 144
West Coast Wood Supply Region												
Buller District	463	331	958	807	362	474	188	12	16	4	20	3 635
Grey District	2 517	3 002	2 257	2 059	687	2 489	526	193	457	50	0	14 237
Westland District	2 677	2 520	4 357	2 395	980	1 100	418	171	61	6	28	14 713
Region total	5 657	5 853	7 572	5 261	2 029	4 063	1 132	376	534	60	48	32 585
Canterbury Wood Supply Region												
Hurunui District	3 427	7 250	10 463	8 043	4 044	3 486	1 185	270	416	54	102	38 740
Waimakariri District	556	1 271	2 974	4 454	1 821	564	186	124	59	42	2	12 053
Selwyn District	561	902	2 087	2 912	1 969	1 044	382	408	203	24	27	10 519
Christchurch City	284	927	2 094	4 618	770	699	338	109	12	4	47	9 902
Ashburton District	306	416	1 004	732	456	445	195	137	39	48	28	3 806
Mackenzie District	320	752	753	1 822	263	315	197	131	258	78	34	4 923
Timaru District	621	2 974	2 528	2 326	1 657	749	534	232	188	13	42	11 864
Waimate District	680	1 000	5 175	1 975	856	1 478	210	40	52	31	18	11 515
Region total	6 755	15 492	27 078	26 882	11 836	8 780	3 227	1 451	1 227	294	300	103 322
Otago and Southland Wood Supply Region												
Waitaki District	724	3 156	7 413	3 450	1 538	1 330	410	120	113	39	10	18 303
Queenstown-Lakes District	3	27	74	181	201	126	103	6	9	20	7	757
Central Otago District	471	619	2 659	1 639	259	451	386	245	413	44	105	7 291
Dunedin City	1 313	879	1 742	3 528	2 936	2 873	636	158	55	44	47	14 211
Clutha District	8 243	15 426	22 836	18 503	6 188	7 110	1 944	383	449	83	112	81 277
Southland District	5 691	15 638	25 236	17 180	5 916	5 416	1 916	524	409	57	15	77 998
Gore District	104	110	2 340	1 298	118	165	44	8	54	5	0	4 246
Invercargill City	8	67	99	183	83	114	99	23	7	5	0	688
Region total	16 557	35 922	62 399	45 962	17 239	17 585	5 538	1 467	1 509	297	296	204 771
South Island total	52 797	82 316	127 480	121 636	49 428	47 676	15 963	5 022	3 917	816	771	507 822
New Zealand total	172 797	270 902	402 692	395 203	208 847	188 527	52 520	14 306	9 776	1 927	1 937	1 719 434

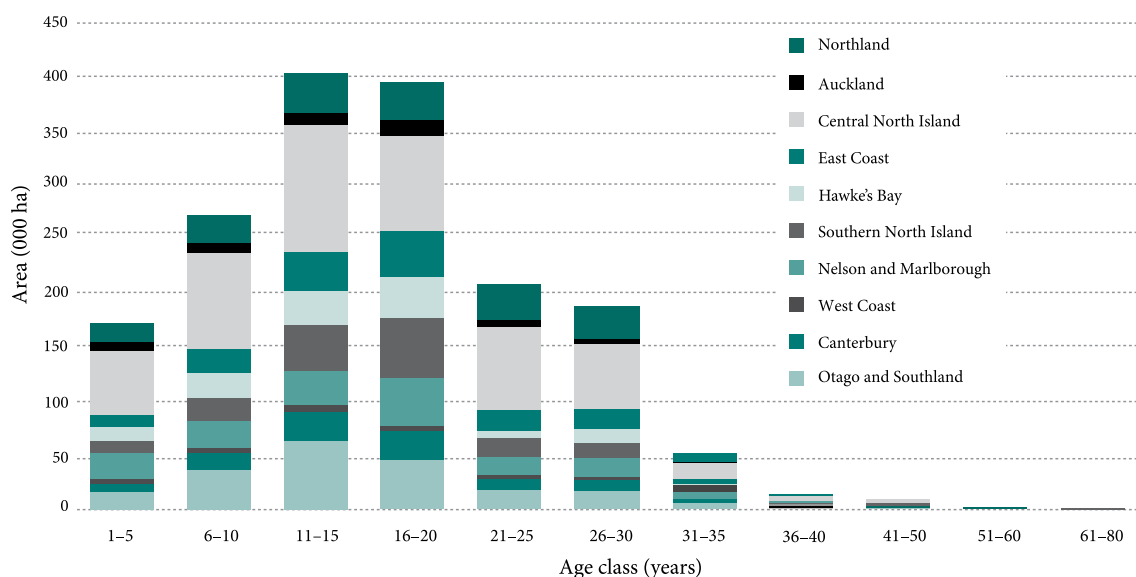
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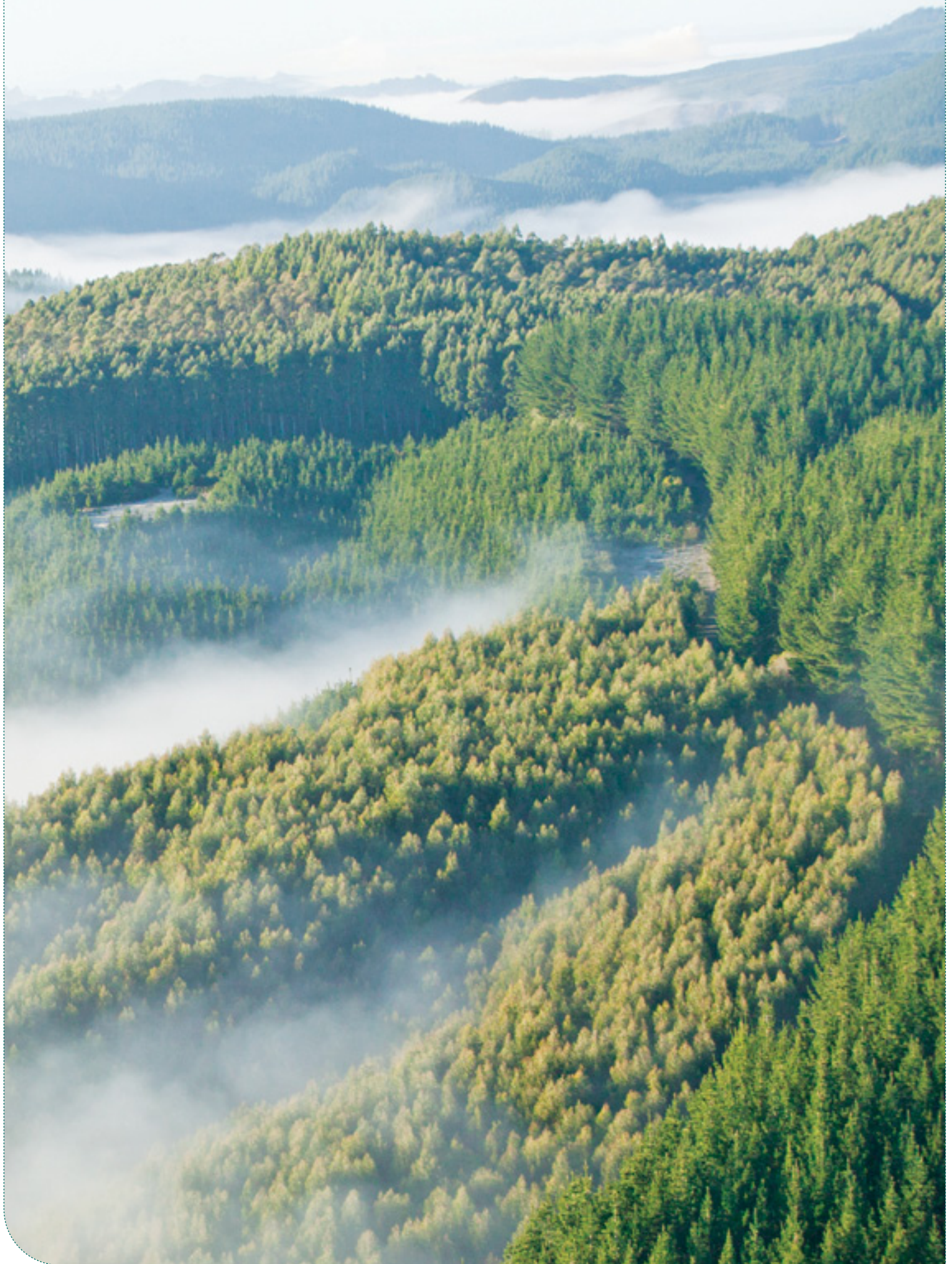
1. Net stocked planted production forest area.

Symbol

C Confidential.

»» FIGURE 9.9: FOREST AREA BY AGE CLASS AND WOOD SUPPLY REGION





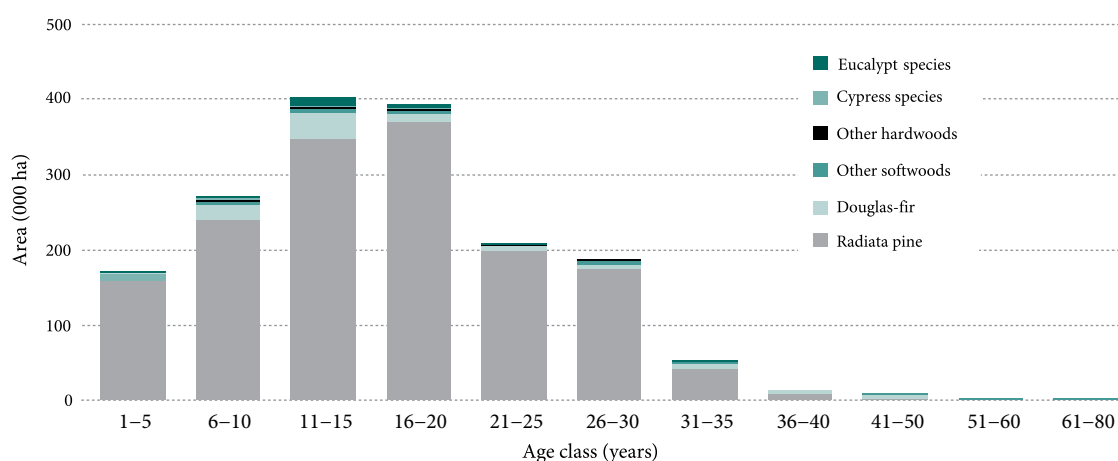
SPECIES

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 9.10: FOREST AREA BY AGE CLASS AND SPECIES, AS AT 1 APRIL 2011



»» TABLE 9.10: AREA¹ PLANTED IN RADIATA PINE BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	9 578	9 790	11 574	15 110	15 105	17 513	5 459	1 029	96	2	0	85 256
Whangarei District	2 451	3 501	5 826	5 969	5 975	6 753	867	182	129	2	3	31 658
Kaipara District	2 410	3 471	8 679	7 237	10 807	4 554	450	146	44	10	4	37 812
Rodney District	3 832	7 125	8 037	5 793	1 785	1 306	1 365	335	112	4	12	29 706
Region total	18 271	23 887	34 116	34 109	33 672	30 126	8 141	1 692	381	18	19	184 432
Auckland Wood Supply Region												
North Shore City	0	0	0	0	6	0	3	1	0	0	0	10
Waitakere City	0	0	1	3	1	0	2	1	0	0	0	8
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	260	1 091	967	2 041	267	455	77	192	11	0	0	5 361
Papakura District	12	0	3	30	20	29	81	29	0	0	0	204
Franklin District	147	403	1 129	2 183	1 322	584	101	60	4	33	24	5 990
Thames-Coromandel District	5 138	4 252	3 105	3 400	1 905	3 301	1 156	226	63	11	28	22 585
Hauraki District	0	278	890	1 268	498	194	36	6	0	0	0	3 170
Waikato District	1 204	2 629	4 703	5 049	1 146	425	61	8	12	4	0	15 241
Matamata-Piako District	385	169	140	401	95	74	69	4	0	0	0	1 337
Region total	7 146	8 822	10 938	14 375	5 260	5 062	1 586	527	90	48	52	53 906
Central North Island Wood Supply Region												
Hamilton City	0	0	0	0	0	1	0	0	0	0	0	1
Waipa District	5	135	809	660	139	149	157	27	0	0	2	2 083
Otorohanga District	0	1 197	1 086	1 692	233	348	81	18	0	0	0	4 655
South Waikato District	7 376	13 125	14 266	14 176	10 671	4 324	165	14	28	1	77	64 223
Waitomo District	3 348	4 165	6 834	6 263	1 069	991	185	8	0	0	0	22 863
Taupo District	21 106	30 851	30 118	17 209	27 201	27 059	6 047	118	82	12	7	159 810
Tauranga City	0	10	28	38	16	5	0	0	0	0	0	97
Ruapehu District	2 173	3 988	17 438	7 953	5 778	6 065	1 607	21	1	0	0	45 024
Western Bay of Plenty District	2 112	2 935	4 464	6 408	4 831	1 457	272	9	6	0	8	22 502
Rotorua District	7 207	11 103	10 272	7 510	7 428	1 971	343	33	42	12	16	45 937
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	13 330	16 125	23 668	20 286	12 024	8 752	1 407	186	56	33	1	95 868
Opotiki District	1 022	1 356	1 292	1 012	5 078	5 995	742	10	0	0	0	16 507
Region total	57 679	84 990	110 275	83 207	74 468	57 117	11 006	444	215	58	111	479 570
East Coast Wood Supply Region												
Gisborne District	9 652	20 789	35 675	43 326	18 510	18 827	3 779	1 183	73	23	7	151 844
Region total	9 652	20 789	35 675	43 326	18 510	18 827	3 779	1 183	73	23	7	151 844
Hawke's Bay Wood Supply Region												
Wairoa District	6 227	9 270	10 834	15 595	1 791	6 344	1 194	67	15	4	0	51 341
Hastings District	6 823	12 413	13 185	16 854	3 974	4 958	996	345	41	22	2	59 613
Napier City	0	0	45	23	6	49	1	5	0	0	0	129
Central Hawke's Bay District	553	1 385	5 845	4 691	1 024	761	363	104	44	11	15	14 796
Region total	13 603	23 068	29 909	37 163	6 795	12 112	2 554	521	100	37	17	125 879
Southern North Island Wood Supply Region												
New Plymouth District	70	510	796	1 170	503	212	135	30	1	0	0	3 427
Stratford District	348	544	657	3 124	329	808	49	8	0	0	1	5 868
South Taranaki District	33	981	2 674	3 987	1 270	453	268	35	22	5	2	9 730
Wanganui District	2 640	3 652	6 394	10 105	4 180	1 612	235	38	39	0	9	28 904
Rangitikei District	464	2 214	8 843	5 819	1 448	796	359	319	188	11	0	20 461
Manawatu District	102	767	945	2 962	460	670	529	104	27	C	C	6 572
Palmerston North City	489	156	179	647	69	108	500	89	0	0	0	2 237
Horowhenua District	766	1 106	632	2 743	493	408	306	67	33	23	5	6 582
Tararua District	409	1 608	4 987	4 948	830	785	462	166	49	10	2	14 256
Kapiti Coast District	70	362	685	1 264	518	518	187	14	3	0	0	3 621
Upper Hutt City	653	1 000	962	730	948	1 098	538	55	197	C	C	6 213
Porirua City	0	55	34	799	720	220	13	60	3	0	0	1 904
Wellington City	0	36	53	308	70	14	2	0	0	0	0	483
Lower Hutt City	0	10	50	50	13	97	61	14	0	0	0	295
Masterton District	2 444	4 031	7 273	10 608	2 614	3 930	1 142	298	196	19	0	32 555
Carterton District	962	1 189	5 089	2 296	1 113	628	555	127	74	4	0	12 037
South Wairarapa District	143	1 369	2 419	2 575	719	386	172	122	69	1	1	7 976
Region total	9 593	19 590	42 672	54 135	16 297	12 743	5 513	1 546	901	83	48	163 121
North Island total	115 944	181 146	263 585	266 315	155 002	135 987	32 579	5 913	1 760	267	254	1 158 752

»» 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 and Marlborough Wood Supply Region												
Tasman District	14 692	14 674	13 818	18 480	7 609	5 520	1 346	152	214	15	15	76 535
Nelson City	2 232	1 551	1 305	1 764	617	781	60	12	1	0	0	8 323
Marlborough District	6 690	7 993	12 953	20 597	8 673	7 863	1 822	648	196	27	2	67 464
Kaikoura District	9	129	439	437	50	89	61	0	1	2	0	1 217
Region total	23 623	24 347	28 515	41 278	16 949	14 253	3 289	812	412	44	17	153 539
West Coast Wood Supply Region												
Buller District	299	191	761	761	360	422	47	3	4	0	0	2 848
Grey District	2 154	2 697	2 057	2 028	637	2 166	341	73	142	0	0	12 295
Westland District	1 602	1 078	2 731	1 256	412	382	342	169	21	1	0	7 994
Region total	4 055	3 966	5 549	4 045	1 409	2 970	730	245	167	1	0	23 137
Canterbury Wood Supply Region												
Hurunui District	2 080	4 990	9 133	7 405	3 820	2 331	542	146	108	14	7	30 576
Waimakariri District	533	1 221	2 897	4 200	1 778	525	97	16	50	36	2	11 355
Selwyn District	549	792	1 806	2 273	1 616	914	356	389	46	2	8	8 751
Christchurch City	283	634	1 717	3 004	677	632	315	106	7	1	23	7 399
Ashburton District	288	356	736	589	314	396	173	68	36	6	15	2 977
Mackenzie District	165	181	355	1 246	118	113	66	57	80	2	0	2 383
Timaru District	336	494	1 273	2 116	1 401	612	97	15	21	0	1	6 366
Waimate District	655	644	2 734	1 345	794	1 140	127	31	23	24	5	7 522
Region total	4 889	9 312	20 651	22 178	10 518	6 663	1 773	828	371	85	61	77 329
Otago and Southland Wood Supply Region												
Waitaki District	613	2 934	3 781	3 190	1 470	1 133	294	118	104	24	7	13 668
Queenstown-Lakes District	0	10	18	42	23	36	80	0	4	20	7	240
Central Otago District	5	201	284	961	76	268	120	51	9	4	70	2 049
Dunedin City	1 257	781	1 500	3 256	2 729	2 260	400	32	42	31	1	12 289
Clutha District	5 825	10 783	13 921	16 037	5 162	5 233	1 294	233	51	15	10	58 564
Southland District	3 514	6 944	9 690	11 327	4 876	4 097	1 023	405	214	16	0	42 106
Gore District	6	61	743	1 097	73	165	41	8	37	1	0	2 232
Invercargill City	8	67	99	175	77	113	98	23	7	5	0	672
Region total	11 228	21 781	30 036	36 085	14 486	13 305	3 350	870	468	116	95	131 820
South Island total	43 795	59 406	84 751	103 586	43 362	37 191	9 142	2 755	1 418	246	173	385 825
New Zealand total	159 739	240 552	348 336	369 901	198 364	173 178	41 721	8 668	3 178	513	427	1 544 577

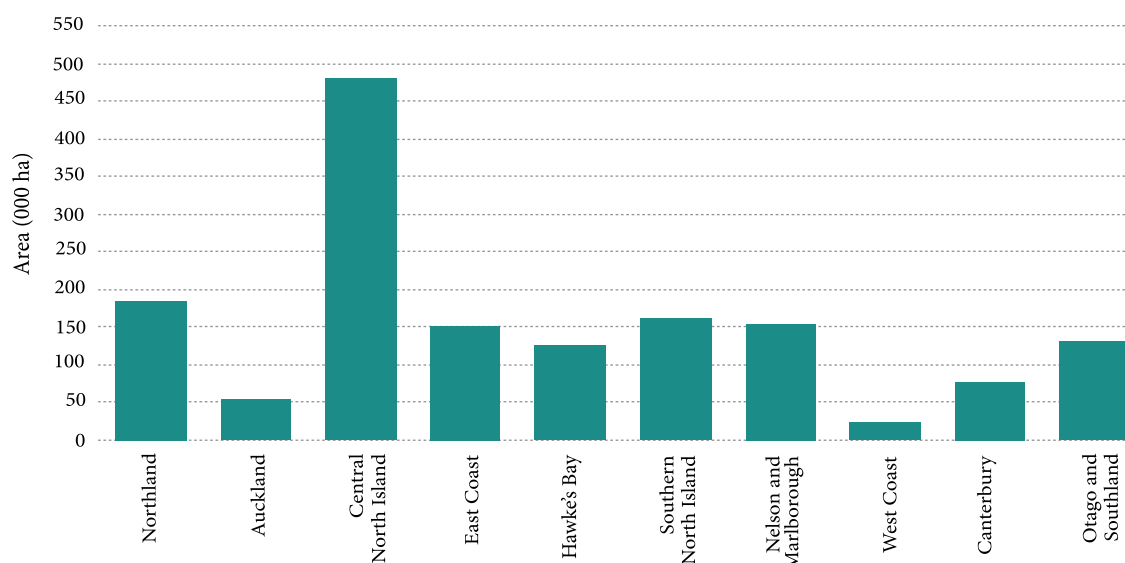
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

»» FIGURE 9.11: AREA PLANTED IN RADIATA PINE BY WOOD SUPPLY REGION



»» TABLE 9.11: AREA¹ PLANTED IN DOUGLAS-FIR BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	2	0	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
Rodney District	0	0	0	0	0	0	0	0	0	0	0	0
Region total	0	0	0	2	0	0	0	2	0	0	0	4
Auckland Wood Supply Region												
North Shore City	0	0	0	0	0	0	0	0	0	0	0	0
Waitakere City	0	0	0	0	0	0	0	0	0	0	0	0
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	0	0	0	6	0	0	0	0	0	0	0	6
Papakura District	0	0	0	0	0	0	0	0	0	0	0	0
Franklin District	0	0	0	0	0	0	0	0	0	0	0	0
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	6	1	0	0	0	0	0	8
Matamata-Piako District	0	1	3	0	0	0	0	0	0	0	0	4
Region total	0	1	3	17	6	1	0	0	0	0	0	28
Central North Island Wood Supply Region												
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	2	1	0	0	0	0	0	0	0	3
Otorohanga District	0	54	37	22	1	0	0	0	129	0	0	243
South Waikato District	226	216	11	4	0	2	0	6	9	0	7	481
Waitomo District	1 439	128	153	190	3	6	2	253	280	112	3	2 569
Taupo District	137	1 230	756	988	792	876	998	1 191	494	0	10	7 472
Tauranga City	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	3	148	182	47	0	4	17	23	84	0	1	509
Western Bay of Plenty District	35	4	7	5	0	1	2	18	12	2	4	90
Rotorua District	0	35	487	241	424	219	769	730	262	6	118	3 291
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	11	212	1 369	793	1 413	1 313	714	702	386	30	38	6 981
Opotiki District	0	0	0	0	0	0	0	0	0	0	0	0
Region total	1 851	2 027	3 004	2 291	2 633	2 421	2 502	2 923	1 656	150	181	21 639
East Coast Wood Supply Region												
Gisborne District	332	716	510	271	0	1	3	2	525	1	0	2 361
Region total	332	716	510	271	0	1	3	2	525	1	0	2 361
Hawke's Bay Wood Supply Region												
Wairoa District	0	29	12	1	0	0	2	4	73	3	3	127
Hastings District	0	C	21	139	0	51	8	26	21	C	C	306
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	C	7	23	1	0	1	0	7	C	C	56
Region total	0	49	40	163	1	51	11	30	101	38	5	489
Southern North Island Wood Supply Region												
New Plymouth District	0	0	0	0	0	0	0	0	0	0	0	0
Stratford District	0	1	1	0	0	0	0	1	230	198	0	431
South Taranaki District	0	0	0	0	0	1	0	0	0	0	0	1
Wanganui District	0	0	10	1	0	0	0	10	40	0	0	61
Rangitikei District	1	C	C	C	0	1	8	1	5	6	1	135
Manawatu District	0	C	C	C	6	4	2	1	0	0	0	20
Palmerston North City	0	0	0	0	0	0	0	0	0	0	0	0
Horowhenua District	0	0	0	0	1	0	0	0	13	0	0	14
Tararua District	0	6	17	0	0	1	0	10	0	3	0	37
Kapiti Coast District	0	1	2	0	0	0	0	0	0	0	0	3
Upper Hutt City	0	8	11	1	1	7	2	0	3	2	0	35
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	6	11	4	0	0	5	6	191	10	0	233
Carterton District	0	2	22	1	0	0	0	0	0	0	0	25
South Wairarapa District	0	0	0	0	0	1	0	0	7	0	0	8
Region total	1	36	131	57	8	15	17	29	489	219	1	1 003
North Island total	2 184	2 829	3 688	2 801	2 648	2 489	2 533	2 986	2 771	408	187	25 524

»» 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 and Marlborough Wood Supply Region												
Tasman District	119	247	1 013	1 534	998	1 240	1 632	555	78	35	9	7 460
Nelson City	7	4	34	28	2	228	100	70	29	11	0	513
Marlborough District	13	78	404	111	102	793	462	69	9	5	2	2 048
Kaikoura District	0	0	19	2	0	1	0	22	37	4	0	85
Region total	139	329	1 470	1 675	1 102	2 262	2 194	716	153	55	11	10 106
West Coast Wood Supply Region												
Buller District	164	139	184	8	2	5	37	1	1	4	0	545
Grey District	233	146	175	0	0	37	24	47	204	1	0	867
Westland District	0	0	12	2	0	14	0	0	11	0	0	39
Region total	397	285	371	10	2	56	61	48	216	5	0	1 451
Canterbury Wood Supply Region												
Hurunui District	380	1 316	1 256	554	208	512	428	65	128	2	6	4 855
Waimakariri District	2	50	39	21	6	25	30	96	9	5	0	283
Selwyn District	10	95	170	449	288	112	20	11	124	17	9	1 305
Christchurch City	0	3	42	35	28	14	9	0	3	0	0	134
Ashburton District	15	38	172	83	74	28	C	C	3	C	C	518
Mackenzie District	131	561	333	295	74	45	C	C	18	C	C	1 544
Timaru District	243	2 459	985	48	83	12	367	200	104	7	29	4 537
Waimate District	17	277	2 220	545	26	98	9	5	17	7	7	3 228
Region total	798	4 799	5 217	2 030	787	846	959	456	406	52	54	16 404
Otago and Southland Wood Supply Region												
Waitaki District	79	195	3 497	85	10	116	75	2	3	0	0	4 062
Queenstown-Lakes District	0	12	55	117	165	90	23	6	2	0	0	470
Central Otago District	366	360	2 133	139	76	71	41	50	42	7	0	3 285
Dunedin City	42	84	221	95	80	559	196	125	12	0	15	1 429
Clutha District	2 218	4 305	7 647	2 083	835	1 285	515	126	315	19	6	19 354
Southland District	1 060	7 188	10 652	2 570	214	1 010	407	48	185	1	0	23 335
Gore District	0	43	1 011	57	4	0	3	0	15	4	0	1 137
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	3 765	12 187	25 216	5 146	1 384	3 131	1 260	357	574	31	21	53 072
South Island total	5 099	17 600	32 274	8 861	3 275	6 295	4 474	1 577	1 349	143	86	81 033
New Zealand total	7 283	20 429	35 962	11 662	5 923	8 784	7 007	4 563	4 120	551	273	106 557

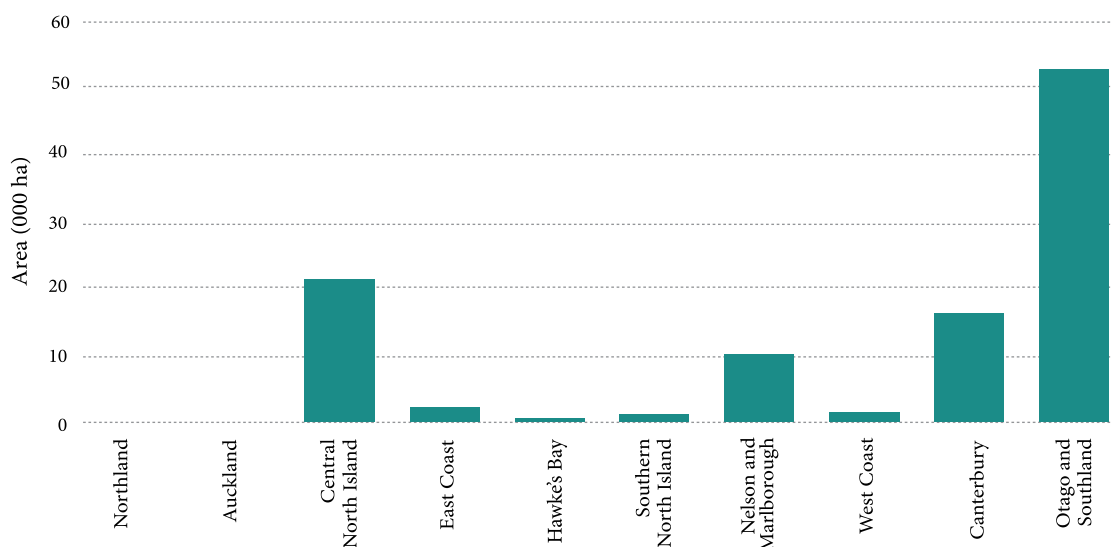
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

»» FIGURE 9.12: AREA PLANTED IN DOUGLAS-FIR BY WOOD SUPPLY REGION



»»» TABLE 9.12: AREA¹ PLANTED IN CYPRESS SPECIES BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	3	24	26	61	1	C	11	C	0	0	0	139
Whangarei District	0	0	9	14	0	0	2	0	0	0	0	25
Kaipara District	0	21	0	6	0	0	0	0	0	0	0	27
Rodney District	2	15	32	7	15	C	0	C	0	0	0	74
Region total	5	60	67	88	16	3	13	13	0	0	0	265
Auckland Wood Supply Region												
North Shore City	0	0	0	0	0	0	0	0	0	0	0	0
Waitakere City	0	0	0	0	0	0	0	0	0	0	0	0
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	12	41	0	0	0	0	0	4	1	0	0	58
Papakura District	0	0	0	0	0	0	0	0	0	0	0	0
Franklin District	0	1	4	53	1	0	0	0	0	0	0	59
Thames-Coromandel District	0	0	2	3	21	119	0	0	0	0	0	145
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
Region total	12	42	6	56	22	121	0	4	1	0	0	264
Central North Island Wood Supply Region												
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	4	0	0	0	0	0	0	4
South Waikato District	2	0	0	10	9	0	0	0	0	0	0	21
Waitomo District	0	0	0	1	0	0	0	0	0	0	0	1
Taupo District	208	106	64	3	0	7	0	0	0	0	0	388
Tauranga City	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	0	1	0	0	0	1	0	0	0	0	12	14
Western Bay of Plenty District	16	30	12	2	0	8	0	0	4	0	0	72
Rotorua District	0	144	1	9	8	40	0	0	0	0	1	203
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	0	78	70	2	25	39	0	0	0	4	0	218
Opotiki District	0	0	0	0	1	0	0	0	0	0	0	1
Region total	226	359	147	27	47	95	0	0	4	4	13	922
East Coast Wood Supply Region												
Gisborne District	23	72	43	41	15	32	24	3	32	2	2	289
Region total	23	72	43	41	15	32	24	3	32	2	2	289
Hawke's Bay Wood Supply Region												
Wairoa District	0	124	54	0	0	0	0	0	0	0	0	178
Hastings District	26	19	22	9	0	1	0	0	0	0	0	77
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	3	4	0	0	29	5	2	0	0	0	43
Region total	26	146	80	9	0	30	5	2	0	0	0	298
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	0	0	0	0	0	1	6
South Taranaki District	0	7	0	2	9	0	0	0	0	0	0	18
Wanganui District	0	95	2	0	0	8	0	3	14	0	0	122
Rangitikei District	4	21	C	C	9	16	7	39	51	0	0	164
Manawatu District	0	0	C	C	7	13	0	2	0	0	0	35
Palmerston North City	0	0	0	0	0	0	0	0	0	0	0	0
Horowhenua District	2	0	6	0	12	17	22	14	31	5	17	126
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	9	11	1	3	4	0	0	0	0	28
Carterton District	0	0	0	1	0	0	0	0	0	0	0	1
South Wairarapa District	0	2	0	0	2	0	0	0	0	0	0	4
Region total	7	125	45	24	42	66	33	58	96	5	19	520
North Island total	299	804	388	245	142	347	75	80	133	11	34	2 558

»» 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 and Marlborough Wood Supply Region												
Tasman District	5	13	28	52	0	0	0	3	0	0	2	103
Nelson City	0	4	8	5	0	0	0	0	0	0	0	17
Marlborough District	6	55	88	51	6	16	2	1	0	0	1	226
Kaikoura District	0	8	0	0	0	0	0	0	0	0	0	8
Region total	11	80	124	108	6	16	2	4	0	0	3	354
West Coast Wood Supply Region												
Buller District	0	0	3	2	0	11	0	0	0	0	10	26
Grey District	41	110	20	16	26	85	10	0	0	13	0	321
Westland District	996	1 235	1 312	483	68	310	23	0	0	0	1	4 428
Region total	1 037	1 345	1 335	501	94	406	33	0	0	13	11	4 775
Canterbury Wood Supply Region												
Hurunui District	54	34	3	5	1	0	0	0	0	3	7	107
Waimakariri District	0	0	8	12	5	0	0	0	0	0	0	25
Selwyn District	0	0	5	7	0	0	0	0	0	0	0	12
Christchurch City	0	0	68	135	0	3	0	0	1	1	0	208
Ashburton District	0	2	14	6	2	0	0	0	0	0	0	24
Mackenzie District	0	1	0	22	0	0	0	0	0	0	0	23
Timaru District	0	0	11	14	0	5	0	0	0	0	0	30
Waimate District	0	14	7	5	13	0	0	0	0	0	0	39
Region total	54	51	116	206	21	8	0	0	1	4	7	468
Otago and Southland Wood Supply Region												
Waitaki District	3	6	14	3	13	0	1	0	0	5	0	45
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	12	8	12	58	63	0	0	0	0	0	0	153
Clutha District	117	260	219	107	76	98	1	1	0	4	9	892
Southland District	45	70	120	10	9	98	18	0	0	0	0	370
Gore District	0	0	0	0	0	0	0	0	0	0	0	0
Invercargill City	0	0	0	5	6	1	1	0	0	0	0	13
Region total	177	344	365	183	167	197	21	1	0	9	9	1 473
South Island total	1 279	1 820	1 940	998	288	627	56	5	1	26	30	7 070
New Zealand total	1 578	2 624	2 328	1 243	430	974	131	85	134	37	64	9 628

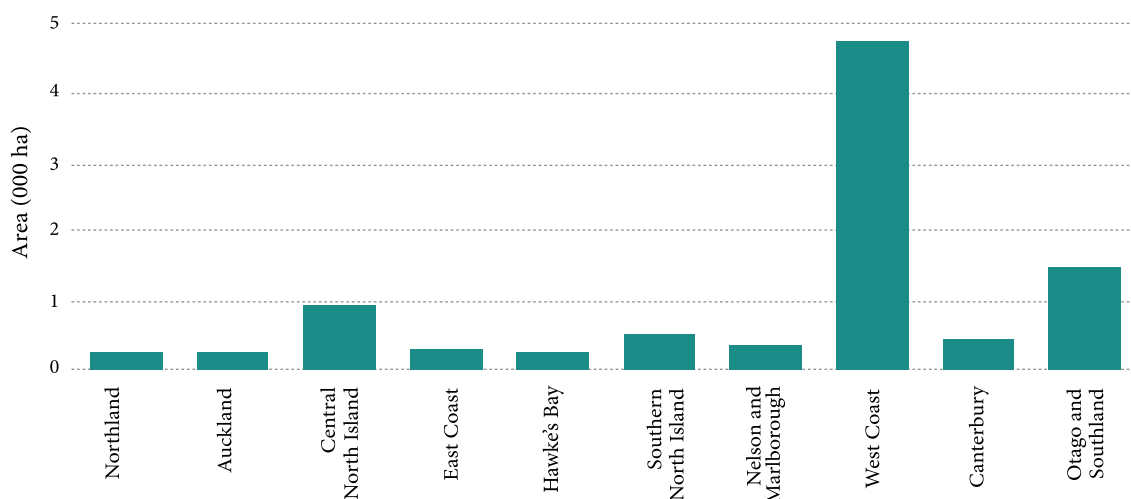
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

»» FIGURE 9.13: AREA PLANTED IN CYPRESS SPECIES BY WOOD SUPPLY REGION



»» TABLE 9.13: AREA¹ PLANTED IN OTHER SOFTWOODS² BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	54	87	60	9	17	7	3	27	7	31	302
Whangarei District	0	19	117	38	7	3	5	3	11	11	5	219
Kaipara District	0	46	59	11	37	C	0	C	1	1	18	180
Rodney District	15	19	24	20	5	C	11	C	0	0	6	111
Region total	15	138	287	129	58	36	23	8	39	19	60	812
Auckland Wood Supply Region												
North Shore City	0	0	0	0	0	0	0	0	0	0	0	0
Waitakere City	0	0	0	0	0	0	0	0	0	0	0	0
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	1	39	9	8	0	1	1	7	2	0	0	68
Papakura District	0	0	0	0	0	0	0	0	0	0	1	1
Franklin District	2	7	11	28	3	5	0	9	14	4	46	129
Thames-Coromandel District	0	6	6	17	2	18	2	2	3	19	73	148
Hauraki District	0	19	16	0	0	1	0	0	0	0	0	36
Waikato District	C	C	36	19	C	0	0	0	0	0	0	133
Matamata-Piako District	C	C	12	5	C	1	0	0	0	0	3	27
Region total	C	C	90	77	16	26	3	18	19	23	123	542
Central North Island Wood Supply Region												
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	6	38	22	2	1	0	0	4	0	0	73
Otorohanga District	0	5	7	22	24	3	0	0	3	0	0	64
South Waikato District	0	0	0	2	28	1	26	4	5	0	26	92
Waitomo District	C	C	30	38	1	13	0	4	36	16	1	151
Taupo District	50	11	44	55	17	48	124	44	27	4	25	449
Tauranga City	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	5	29	220	118	5	12	88	3	12	1	122	615
Western Bay of Plenty District	C	C	118	68	0	2	1	0	0	C	C	255
Rotorua District	42	27	136	64	37	83	35	12	24	1	58	519
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	0	8	23	24	7	21	10	1	8	C	C	133
Opotiki District	0	2	0	3	1	0	2	0	0	0	0	8
Region total	C	C	616	416	122	184	286	68	119	49	251	2 359
East Coast Wood Supply Region												
Gisborne District	57	120	47	96	9	56	166	27	503	84	6	1 171
Region total	57	120	47	96	9	56	166	27	503	84	6	1 171
Hawke's Bay Wood Supply Region												
Wairoa District	24	154	37	37	0	10	62	0	29	35	3	391
Hastings District	4	C	35	48	C	41	32	4	12	25	1	228
Napier City	0	0	0	0	0	2	0	0	0	0	0	2
Central Hawke's Bay District	0	C	34	13	C	10	1	2	18	13	49	177
Region total	28	193	106	98	24	63	95	6	59	73	53	798
Southern North Island Wood Supply Region												
New Plymouth District	106	117	332	21	9	1	1	0	1	0	0	588
Stratford District	0	6	3	11	3	5	0	1	0	0	0	29
South Taranaki District	1	26	30	32	7	0	0	0	0	0	3	99
Wanganui District	12	121	45	55	0	0	8	6	48	0	1	296
Rangitikei District	94	286	141	19	31	6	9	0	6	3	11	606
Manawatu District	1	40	22	22	C	C	3	0	0	C	C	118
Palmerston North City	0	0	0	0	1	0	0	0	0	0	0	1
Horowhenua District	0	1	8	18	10	0	4	5	1	5	9	61
Tararua District	0	12	20	7	C	C	7	1	0	0	2	311
Kapiti Coast District	0	7	9	12	1	1	0	0	0	0	0	30
Upper Hutt City	0	1	3	7	21	86	0	0	0	C	C	127
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	2	0	2	0	0	0	0	0	0	4
Masterton District	23	59	60	45	10	43	18	1	47	7	18	331
Carterton District	0	1	15	12	3	1	0	0	42	0	0	74
South Wairarapa District	0	8	10	1	4	0	1	0	0	5	0	29
Region total	237	685	700	268	111	416	51	14	145	31	52	2 710
North Island total	454	1 414	1 846	1 084	340	781	624	141	884	279	545	8 392

»» TABLE 9.13 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 AND MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	24	130	82	180	72	316	245	95	64	19	52	1 279
Nelson City	0	0	1	1	0	35	14	12	8	22	1	94
Marlborough District	13	123	130	73	52	147	36	28	9	13	1	625
Kaikoura District	0	0	7	0	0	0	1	0	0	0	0	8
Region total	37	253	220	254	124	498	296	135	81	54	54	2 006
WEST COAST WOOD SUPPLY REGION												
Buller District	0	1	6	29	0	34	103	5	11	0	6	195
Grey District	0	2	4	5	19	156	128	59	111	35	0	519
Westland District	1	80	172	35	0	23	22	2	29	5	27	396
Region total	1	83	182	69	19	213	253	66	151	40	33	1 110
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	913	875	63	47	10	638	215	59	179	35	82	3 116
Waimakariri District	21	0	16	131	15	11	59	12	0	1	0	266
Selwyn District	2	12	91	144	51	10	5	7	33	2	10	367
Christchurch City	0	38	83	936	51	26	3	3	0	2	6	1 148
Ashburton District	3	20	66	39	58	12	C	C	0	C	C	239
Mackenzie District	24	7	58	229	71	141	C	C	160	C	C	897
Timaru District	42	9	230	120	159	118	70	17	26	6	2	799
Waimate District	8	65	199	60	12	236	74	4	6	0	5	669
Region total	1 013	1 026	806	1 706	427	1 192	480	166	404	141	140	7 501
OTAGO AND SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	29	13	109	124	1	27	10	0	5	8	0	326
Queenstown-Lakes District	3	5	1	22	10	0	0	0	3	0	0	44
Central Otago District	100	58	228	480	104	97	203	144	362	33	35	1 844
Dunedin City	2	5	7	75	29	14	38	0	1	13	16	200
Clutha District	26	64	268	250	82	258	70	12	75	27	71	1 203
Southland District	4	70	50	181	38	134	429	50	6	39	11	1 012
Gore District	0	2	18	141	0	0	0	0	2	0	0	163
Invercargill City	0	0	0	3	0	0	0	0	0	0	0	3
Region total	164	217	681	1 276	264	530	750	206	454	120	133	4 795
South Island total	1 215	1 579	1 889	3 305	834	2 433	1 779	573	1 090	355	360	15 412
New Zealand total	1 669	2 993	3 735	4 389	1 174	3 214	2 403	714	1 974	634	905	23 804

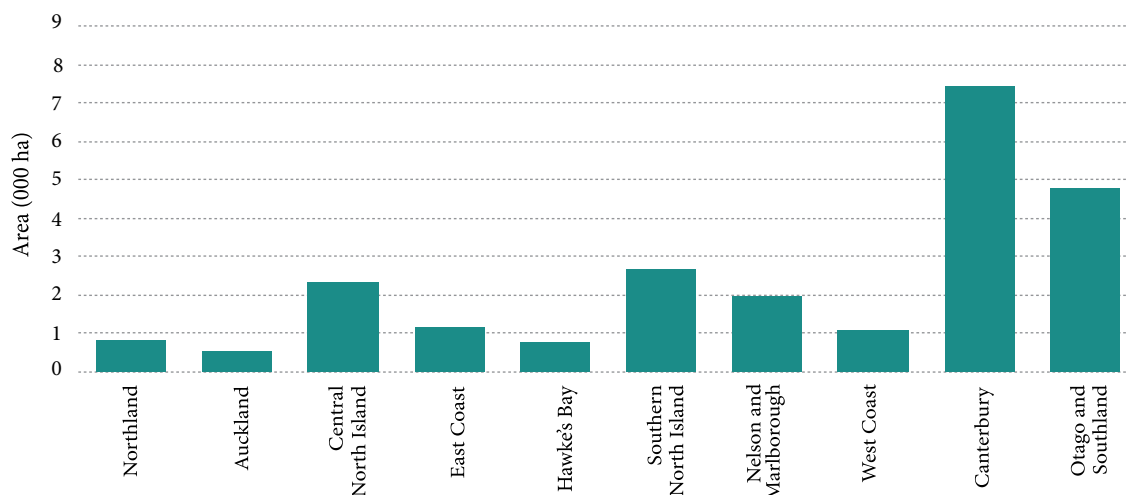
Notes

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

Symbol

C Confidential.

»» FIGURE 9.14: AREA PLANTED IN OTHER SOFTWOODS BY WOOD SUPPLY REGION



»» TABLE 9.14: AREA¹ PLANTED IN EUCALYPT SPECIES BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	15	17	2	11	C	37	C	1	5	0	103
Whangarei District	0	0	0	41	5	25	57	0	0	0	1	129
Kaipara District	0	0	0	151	0	C	1	C	1	0	0	170
Rodney District	10	2	0	8	0	4	9	1	3	1	0	38
Region total	12	17	17	202	16	43	104	17	5	6	1	440
Auckland Wood Supply Region												
North Shore City	0	0	0	0	0	0	0	0	0	0	0	0
Waitakere City	0	0	0	0	0	0	0	0	0	0	0	0
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	12	21	0	2	0	2	0	2	0	0	0	39
Papakura District	0	0	0	0	0	0	0	0	0	0	0	0
Franklin District	0	0	0	7	2	0	0	0	0	0	0	9
Thames-Coromandel District	0	0	0	1	0	70	45	10	0	6	1	133
Hauraki District	0	0	1	0	0	0	0	0	0	0	0	1
Waikato District	0	0	0	1	0	0	0	0	0	0	0	1
Matamata-Piako District	0	0	0	0	0	0	4	0	0	0	0	4
Region total	12	21	1	11	2	72	49	12	0	6	1	187
Central North Island Wood Supply Region												
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	4	0	0	0	0	0	0	4
South Waikato District	210	364	262	43	448	16	5	0	4	0	0	1 352
Waitomo District	0	0	0	2	1	0	54	0	0	0	0	57
Taupo District	554	186	627	938	110	73	8	5	206	0	1	2 708
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	0	1	3	0	0	3	3	0	0	0	1	11
Western Bay of Plenty District	6	63	174	11	6	33	4	1	2	C	C	388
Rotorua District	0	0	468	3	0	21	5	1	0	0	13	511
Kawerau District	0	0	31	0	0	0	0	0	0	0	0	31
Whakatane District	0	169	1 074	375	34	56	3	1	0	C	C	1 714
Opotiki District	0	0	0	0	9	1	5	0	0	0	0	15
Region total	770	783	2 985	1 372	612	203	87	8	212	70	35	7 137
East Coast Wood Supply Region												
Gisborne District	5	2	29	0	62	154	57	8	2	0	0	319
Region total	5	2	29	0	62	154	57	8	2	0	0	319
Hawke's Bay Wood Supply Region												
Wairoa District	48	116	26	0	0	1	0	0	1	0	0	192
Hastings District	2	1	1	3	0	21	1	6	1	0	0	36
Napier City	0	0	0	6	0	0	0	0	0	0	0	6
Central Hawkes Bay District	0	0	1	0	0	0	3	10	0	0	0	14
Region total	50	117	28	9	0	22	4	16	2	0	0	248
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	1	0	0	0	0	0	0	1	2
South Taranaki District	2	0	0	0	1	2	0	0	0	0	0	5
Wanganui District	0	0	0	0	0	1	17	0	3	0	0	21
Rangitikei District	5	C	C	C	2	5	0	0	1	0	0	29
Manawatu District	0	C	C	C	0	0	0	0	0	0	0	10
Palmerston North City	0	0	0	0	0	0	0	0	0	0	0	0
Horowhenua District	0	0	0	1	0	21	4	1	0	0	0	27
Tararua District	0	0	0	0	0	0	0	0	0	0	0	0
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	2	0	0	2	0	2	1	0	1	1	0	9
Carterton District	0	0	0	0	0	0	0	0	0	0	0	0
South Wairarapa District	0	0	0	40	11	0	123	0	0	0	0	174
Region total	9	3	13	54	15	31	145	1	5	1	2	279
North Island total	858	943	3 073	1 648	707	525	446	62	226	83	39	8 610

»» TABLE 9.14 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 and Marlborough Wood Supply Region												
Tasman District	0	0	2	8	16	94	165	41	0	0	3	329
Nelson City	0	0	0	0	4	29	1	3	0	0	1	38
Marlborough District	7	9	0	1	37	61	60	1	0	0	0	176
Kaikoura District	0	0	0	0	0	0	0	0	0	0	0	0
Region total	7	9	2	9	57	184	226	45	0	0	4	543
West Coast Wood Supply Region												
Buller District	0	0	0	0	0	2	1	3	0	0	3	9
Grey District	0	0	0	5	0	0	21	14	0	1	0	41
Westland District	0	0	4	0	1	12	29	0	0	0	0	46
Region total	0	0	4	5	1	14	51	17	0	1	3	96
Canterbury Wood Supply Region												
Hurunui District	0	14	0	0	1	1	0	0	0	0	0	16
Waimakariri District	0	0	0	0	0	1	0	0	0	0	0	1
Selwyn District	0	2	0	0	2	5	0	0	0	0	0	9
Christchurch City	0	0	15	19	0	0	0	0	0	0	10	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	10	0	0	0	0	0	0	0	13
Waimate District	0	0	0	0	0	2	0	0	0	0	0	2
Region total	0	19	15	29	3	26	0	0	0	0	10	102
Otago and Southland Wood Supply Region												
Waitaki District	0	6	0	0	43	42	24	0	1	2	0	118
Queenstown-Lakes District	0	0	0	0	0	0	0	0	0	0	0	0
Central Otago District	0	0	0	0	0	6	21	0	0	0	0	27
Dunedin City	0	0	0	11	25	32	2	1	0	0	0	71
Clutha District	57	5	754	0	3	202	C	C	2	0	2	1 068
Southland District	1 068	1 345	4 633	3 015	756	45	C	C	3	0	2	10 922
Gore District	98	0	565	0	35	0	0	0	0	0	0	698
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	1 223	1 356	5 952	3 026	862	327	121	25	6	2	4	12 904
South Island total	1 230	1 384	5 973	3 069	923	551	398	87	6	3	21	13 645
New Zealand total	2 088	2 327	9 046	4 717	1 630	1 076	844	149	232	86	60	22 255

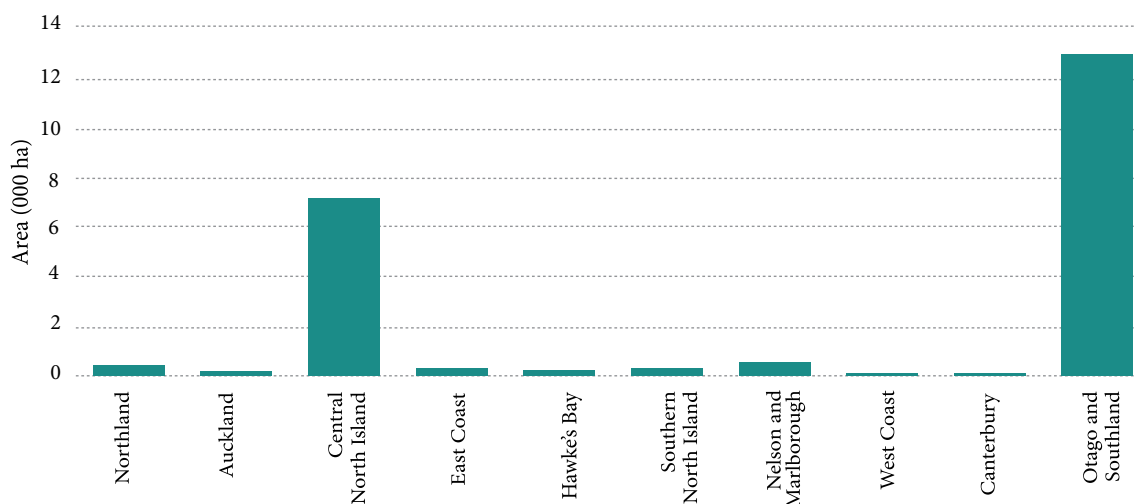
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

»» FIGURE 9.15: AREA PLANTED IN EUCALYPT SPECIES BY WOOD SUPPLY REGION



»» TABLE 9.15: AREA¹ PLANTED IN OTHER HARDWOODS BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	5	708	657	116	63	202	63	3	4	1	3	1 825
Whangarei District	0	14	178	169	29	54	14	3	0	0	2	463
Kaipara District	85	173	382	50	24	17	7	18	8	0	0	764
Rodney District	11	37	220	106	24	15	50	15	5	10	2	495
Region total	101	932	1 437	441	140	288	134	39	17	11	7	3 547
Auckland Wood Supply Region												
North Shore City	0	0	0	0	0	0	0	0	0	0	4	4
Waitakere City	0	0	0	0	0	1	0	0	0	0	0	1
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	0	0	33	15	24	57	3	13	3	0	0	148
Papakura District	0	0	1	0	0	0	0	0	0	0	0	1
Franklin District	0	11	22	51	29	21	17	0	0	0	0	151
Thames-Coromandel District	0	3	2	34	2	9	7	2	0	2	0	61
Hauraki District	0	0	17	7	0	0	0	0	0	0	6	30
Waikato District	C	C	4	28	C	6	1	0	0	0	1	97
Matamata-Piako District	C	C	5	14	C	1	0	0	0	0	0	25
Region total	C	C	84	149	68	95	28	15	3	2	11	518
Central North Island Wood Supply Region												
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	47	140	13	2	2	9	0	0	0	0	213
Otorohanga District	0	12	8	17	15	21	0	0	0	0	2	75
South Waikato District	1	25	27	20	4	3	0	4	2	0	0	86
Waitomo District	C	C	22	38	4	7	1	2	0	2	0	83
Taupo District	0	42	187	52	4	5	9	2	5	0	0	306
Tauranga District	0	3	22	1	1	1	0	0	0	0	0	28
Ruapehu District	0	1	5	0	0	0	1	0	0	0	0	7
Western Bay of Plenty District	C	C	38	62	39	55	14	0	0	1	0	247
Rotorua District	0	67	242	83	29	23	6	17	16	1	9	493
Kawerau District	0	0	3	0	0	0	0	0	0	0	0	3
Whakatane District	0	48	87	50	22	7	4	0	2	3	0	223
Opotiki District	0	9	10	6	3	0	0	0	0	0	0	28
Region total	C	C	791	342	123	124	44	25	25	7	11	1 792
East Coast Wood Supply Region												
Gisborne District	35	15	45	74	74	85	33	11	11	3	36	422
Region total	35	15	45	74	74	85	33	11	11	3	36	422
Hawke's Bay Wood Supply Region												
Wairoa District	0	19	1	0	22	25	2	0	3	0	22	94
Hastings District	104	21	40	29	C	19	7	0	1	C	C	254
Napier City	0	0	0	0	0	2	0	0	0	0	0	2
Central Hawke's Bay District	0	8	23	25	C	6	0	6	0	C	C	82
Region total	104	48	64	54	55	52	9	6	4	6	30	432
Southern North Island Wood Supply Region												
New Plymouth District	0	14	18	18	3	4	1	0	0	0	0	58
Stratford District	3	6	9	46	1	1	0	0	0	0	0	66
South Taranaki District	1	6	24	19	4	2	2	0	0	0	0	58
Wanganui District	1	12	32	32	8	0	1	0	8	0	6	100
Rangitikei District	0	7	60	36	23	2	4	0	10	32	5	179
Manawatu District	0	10	16	23	C	C	0	0	0	0	1	83
Palmerston North City	0	8	2	52	0	0	0	0	0	0	0	62
Horowhenua District	0	1	10	59	3	1	0	3	0	2	0	79
Tararua District	0	12	15	15	C	C	8	0	3	0	0	69
Kapiti Coast District	0	2	12	16	1	0	1	0	0	0	0	32
Upper Hutt City	0	0	0	3	0	23	0	0	0	0	0	26
Porirua City	0	0	0	0	1	1	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	5	23	10	16	12	12	8	3	4	0	0	93
Carterton District	0	1	0	6	8	0	18	0	0	0	0	33
South Wairarapa District	0	1	3	73	39	0	9	0	0	0	0	125
Region total	10	103	211	414	120	78	52	6	25	34	12	1 065
North Island total	261	1 450	2 632	1 474	580	722	300	102	85	63	107	7 776

»» TABLE 9.15 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 and Marlborough Wood Supply Region												
Tasman District	1	9	69	84	51	19	50	10	0	8	33	334
Nelson City	0	0	1	5	7	0	0	0	0	3	0	16
Marlborough District	10	22	30	118	28	16	6	6	1	1	5	243
Kaikoura District	0	0	0	0	0	0	3	0	0	0	0	3
Region total	11	31	100	207	86	35	59	16	1	12	38	596
West Coast Wood Supply Region												
Buller District	0	0	4	7	0	0	0	0	0	0	1	12
Grey District	89	47	1	5	5	45	2	0	0	0	0	194
Westland District	78	127	126	619	499	359	2	0	0	0	0	1 810
Region total	167	174	131	631	504	404	4	0	0	0	1	2 016
Canterbury Wood Supply Region												
Hurunui District	0	21	8	32	4	4	0	0	1	0	0	70
Waimakariri District	0	0	14	90	17	2	0	0	0	0	0	123
Selwyn District	0	1	15	39	12	3	1	1	0	3	0	75
Christchurch City	1	252	169	489	14	24	11	0	1	0	8	969
Ashburton District	0	0	16	15	8	6	0	0	0	0	0	45
Mackenzie District	0	2	7	30	0	2	3	0	0	9	9	62
Timaru District	0	9	29	18	14	2	0	0	37	0	10	119
Waimate District	0	0	15	20	11	2	0	0	6	0	1	55
Region total	1	285	273	733	80	45	15	1	45	12	28	1 518
Otago and Southland Wood Supply Region												
Waitaki District	0	2	12	48	1	12	6	0	0	0	3	84
Queenstown-Lakes District	0	0	0	0	3	0	0	0	0	0	0	3
Central Otago District	0	0	14	59	3	9	1	0	0	0	0	86
Dunedin City	0	1	2	33	10	8	0	0	0	0	15	69
Clutha District	0	9	27	26	30	34	C	C	6	18	14	196
Southland District	0	21	91	77	23	32	C	C	1	1	2	253
Gore District	0	4	3	3	6	0	0	0	0	0	0	16
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	0	37	149	246	76	95	36	8	7	19	34	707
South Island total	179	527	653	1 817	746	579	114	25	53	43	101	4 837
New Zealand total	440	1 977	3 285	3 291	1 326	1 301	414	127	138	106	208	12 613

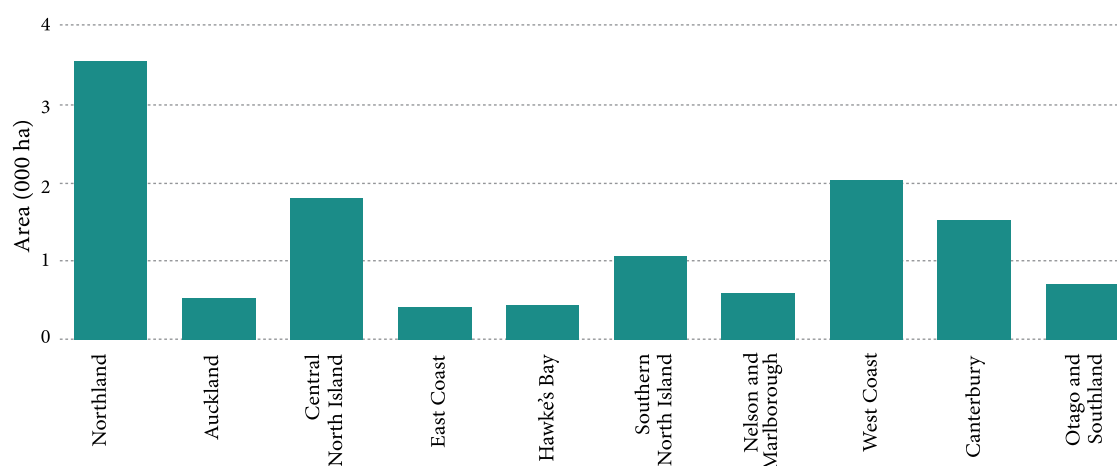
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

»» FIGURE 9.16: AREA PLANTED IN OTHER HARDWOODS BY WOOD SUPPLY REGION





RADIATA PINE TENDING REGIME

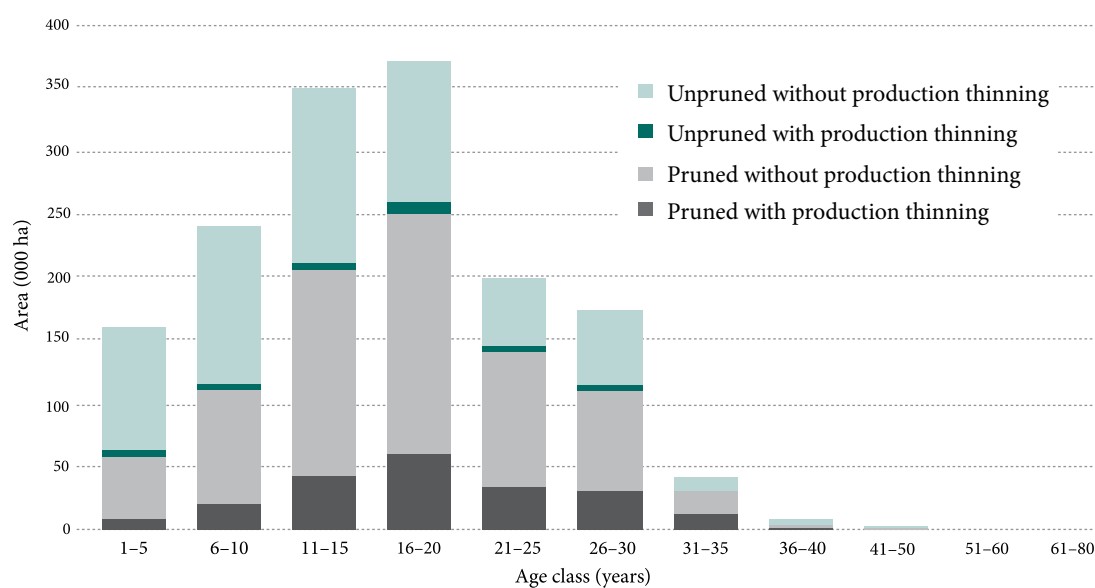
This section presents detailed information for each radiata pine NEFD tending regime, showing the forest area for each territorial authority by five-yearly age class.

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 9.17: RADIATA PINE FOREST AREA BY AGE CLASS AND TENDING REGIME, AS AT 1 APRIL 2011



»» TABLE 9.16: AREA¹ OF RADIATA PINE PRUNED WITH PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	345	569	1 395	1 917	3 493	4 287	3 484	222	4	0	0	15 716
Whangarei District	4	201	942	1 320	376	209	184	C	C	0	1	3 474
Kaipara District	1	40	1 070	1 755	1 436	27	75	15	4	4	0	4 427
Rodney District	1	190	1 145	1 128	99	227	369	C	C	1	0	3 257
Region total	351	1 000	4 552	6 120	5 404	4 750	4 112	443	136	5	1	26 874
Auckland Wood Supply Region												
North Shore City	0	0	0	0	6	0	3	1	0	0	0	10
Waitakere City	0	0	0	1	1	0	2	0	0	0	0	4
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	20	3	22	242	52	71	6	0	1	0	0	417
Papakura District	0	0	0	10	0	0	0	0	0	0	0	10
Franklin District	0	14	170	496	56	52	81	35	0	29	19	952
Thames-Coromandel District	28	39	103	424	48	122	51	66	0	0	0	881
Hauraki District	0	13	107	283	10	67	C	C	0	0	0	511
Waikato District	6	806	1 618	806	152	22	C	C	0	0	0	3 424
Matamata-Piako District	0	21	72	75	22	16	9	1	0	0	0	216
Region total	54	896	2 092	2 337	347	350	195	105	1	29	19	6 425
Central North Island Wood Supply Region												
Hamilton City	0	0	0	0	0	1	0	0	0	0	0	1
Waipa District	5	103	369	382	88	126	130	27	0	0	0	1 230
Otorohanga District	0	73	164	389	65	33	13	0	0	0	0	737
South Waikato District	0	11	53	123	20	71	C	C	1	0	0	284
Waitomo District	24	132	1 246	1 074	216	204	C	C	0	0	0	2 936
Taupo District	4 655	6 590	3 505	2 481	12 394	14 649	3 571	4	13	0	0	47 862
Tauranga City	0	1	2	6	0	5	0	0	0	0	0	14
Ruapehu District	203	436	2 122	2 174	313	874	284	0	0	0	0	6 406
Western Bay of Plenty District	54	271	507	1 812	668	409	125	0	0	0	1	3 847
Rotorua District	1 002	2 992	1 890	1 677	1 475	342	161	5	1	8	6	9 559
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	1 043	2 399	6 931	4 936	4 445	2 003	233	1	6	0	0	21 997
Opotiki District	0	2	7	34	0	0	11	0	0	0	0	54
Region total	6 986	13 010	16 796	15 088	19 684	18 717	4 570	40	21	8	7	94 927
East Coast Wood Supply Region												
Gisborne District	1	243	946	2 129	618	237	150	13	0	0	0	4 337
Region total	1	243	946	2 129	618	237	150	13	0	0	0	4 337
Hawke's Bay Wood Supply Region												
Wairoa District	30	31	234	680	74	213	56	7	2	0	0	1 327
Hastings District	28	192	565	3 432	391	582	205	26	2	0	1	5 424
Napier City	0	0	6	0	0	2	0	0	0	0	0	8
Central Hawkes Bay District	57	182	1 075	2 048	261	282	265	50	10	0	0	4 230
Region total	115	405	1 880	6 160	726	1 079	526	83	14	0	1	10 989
Southern North Island Wood Supply Region												
New Plymouth District	18	169	180	409	283	139	110	3	1	0	0	1 312
Stratford District	3	88	88	680	68	6	19	4	0	0	1	957
South Taranaki District	12	307	1 556	911	317	165	150	7	4	2	1	3 432
Wanganui District	146	1 054	3 184	2 338	1 374	710	54	24	29	0	0	8 913
Rangitikei District	180	482	601	2 633	410	455	170	76	4	1	0	5 012
Manawatu District	18	193	376	1 308	267	349	155	62	20	0	0	2 748
Palmerston North City	2	112	132	236	31	6	97	10	0	0	0	626
Horowhenua District	5	104	127	1 232	354	296	81	18	6	0	1	2 224
Tararua District	14	140	236	1 296	229	214	87	17	7	0	0	2 240
Kapiti Coast District	0	85	236	474	53	85	26	1	0	0	0	960
Upper Hutt City	0	12	94	85	49	46	10	1	5	0	24	326
Porirua City	0	0	14	108	32	132	7	0	0	0	0	293
Wellington City	0	0	0	39	38	2	2	0	0	0	0	81
Lower Hutt City	0	0	46	0	3	0	20	9	0	0	0	78
Masterton District	69	163	259	942	101	15	45	17	1	4	0	1 616
Carterton District	0	29	16	75	7	11	1	0	4	0	0	143
South Wairarapa District	2	85	136	122	21	24	29	6	8	0	0	433
Region total	469	3 023	7 281	12 888	3 637	2 655	1 063	255	89	7	27	31 394
North Island total	7 976	18 577	33 547	44 722	30 416	27 788	10 616	939	261	49	55	174 946

»» TABLE 9.16 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 and Marlborough Wood Supply Region												
Tasman District	68	180	C	C	302	224	206	C	C	0	1	3 487
Nelson City	0	0	C	C	0	0	0	0	0	0	0	95
Marlborough District	37	364	1 853	3 255	580	718	111	C	C	0	0	6 965
Kaikoura District	0	4	55	103	8	4	7	0	0	0	0	181
Region total	105	548	2 674	5 154	890	946	324	60	26	0	1	10 728
West Coast Wood Supply Region												
Buller District	0	1	58	199	2	0	0	0	0	0	0	260
Grey District	0	0	19	172	0	51	82	2	0	0	0	326
Westland District	0	4	147	36	0	23	0	0	0	0	0	210
Region total	0	5	224	407	2	74	82	2	0	0	0	796
Canterbury Wood Supply Region												
Hurunui District	18	286	1 680	1 572	324	272	128	78	58	3	0	4 419
Waimakariri District	27	113	319	1 226	255	143	29	0	26	0	0	2 138
Selwyn District	4	47	163	515	149	74	114	0	23	0	7	1 096
Christchurch City	0	190	444	693	145	148	80	3	0	0	0	1 703
Ashburton District	2	25	104	184	C	C	13	0	28	0	0	571
Mackenzie District	0	21	87	163	C	C	6	0	1	0	0	350
Timaru District	1	127	395	433	168	127	59	14	10	0	1	1 335
Waimate District	1	42	239	168	88	54	12	2	0	0	0	606
Region total	53	851	3 431	4 954	1 275	959	441	97	146	3	8	12 218
Otago and Southland Wood Supply Region												
Waitaki District	6	150	316	890	99	156	164	41	51	0	0	1 873
Queenstown-Lakes District	0	0	0	15	0	31	65	0	0	0	0	111
Central Otago District	0	44	30	120	10	94	0	4	0	0	37	339
Dunedin City	1	41	179	825	152	40	0	10	10	18	0	1 276
Clutha District	3	111	1 037	1 394	178	124	83	29	16	0	0	2 975
Southland District	67	320	1 056	1 228	548	343	210	108	3	0	0	3 883
Gore District	0	10	218	449	17	3	17	2	16	0	0	732
Invercargill City	0	3	1	62	0	0	1	0	0	0	0	67
Region total	77	679	2 837	4 983	1 004	791	540	194	96	18	37	11 256
South Island total	235	2 083	9 166	15 498	3 171	2 770	1 387	353	268	21	46	34 998
New Zealand total	8 211	20 660	42 713	60 220	33 587	30 558	12 003	1 292	529	70	101	209 944

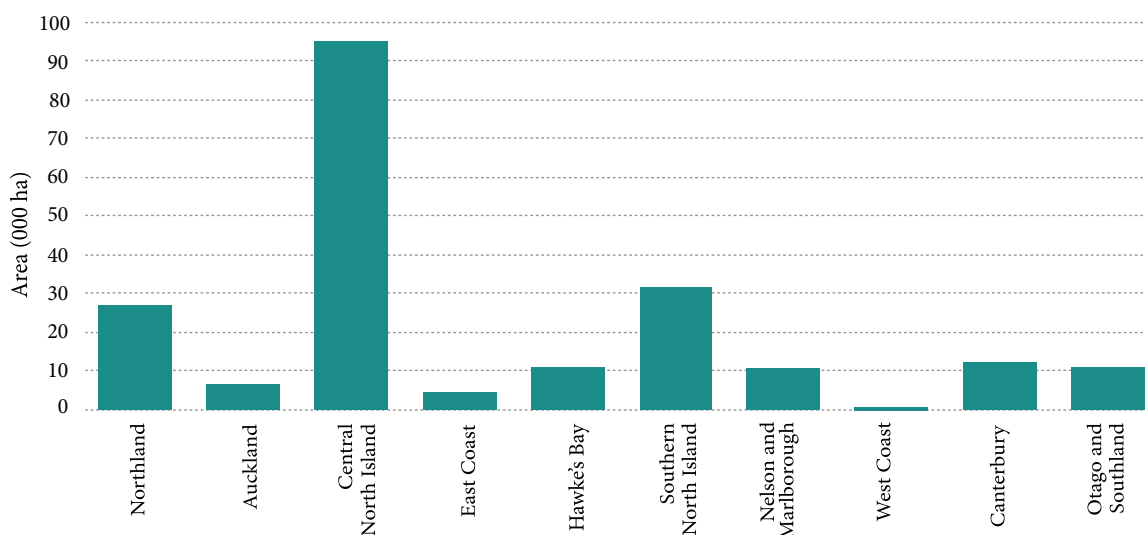
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

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



»» TABLE 9.17: AREA¹ OF RADIATA PINE PRUNED WITHOUT PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	2 224	3 316	6 154	9 241	6 950	4 863	1 293	214	31	0	0	34 286
Whangarei District	25	451	2 727	3 052	2 417	1 080	394	C	C	1	2	10 166
Kaipara District	394	929	3 822	2 340	1 720	1 632	271	56	13	5	0	11 182
Rodney District	22	936	1 527	1 083	599	607	816	C	C	0	2	5 748
Region total	2 665	5 632	14 230	15 716	11 686	8 182	2 774	399	88	6	4	61 382
Auckland Wood Supply Region												
North Shore City	0	0	0	0	0	0	0	0	0	0	0	0
Waitakere City	0	0	1	2	0	0	0	1	0	0	0	4
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	240	958	824	842	75	376	41	192	10	0	0	3 558
Papakura District	12	0	3	20	0	29	15	0	0	0	0	79
Franklin District	147	354	815	1 193	1 197	360	16	25	0	0	1	4 108
Thames-Coromandel District	11	96	158	721	830	1 138	345	15	6	0	8	3 328
Hauraki District	0	87	651	847	479	40	C	C	0	0	0	2 109
Waikato District	306	1 032	1 425	1 887	622	335	C	C	0	0	0	5 626
Matamata-Piako District	1	10	61	282	32	10	42	1	0	0	0	439
Region total	717	2 537	3 938	5 794	3 235	2 288	473	244	16	0	9	19 251
Central North Island Wood Supply Region												
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	12	272	139	33	17	2	0	0	0	0	475
Otorohanga District	0	841	272	638	98	167	56	3	0	0	0	2 075
South Waikato District	534	364	860	2 201	8 189	3 266	C	C	6	0	0	15 508
Waitomo District	37	1 610	4 060	3 528	688	420	C	C	0	0	0	10 393
Taupo District	11 003	12 147	11 955	5 165	10 272	6 604	2 187	66	22	0	0	59 421
Tauranga City	0	9	26	32	16	0	0	0	0	0	0	83
Ruapehu District	3	1 419	3 710	2 279	2 185	2 096	288	0	0	0	0	11 980
Western Bay of Plenty District	568	495	2 361	3 805	2 973	748	110	7	2	0	0	11 069
Rotorua District	3 152	3 697	5 491	2 882	4 437	1 205	146	23	10	3	1	21 047
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	1 427	4 615	11 828	10 208	6 898	6 136	1 126	147	41	0	0	42 426
Opotiki District	277	526	681	436	3 106	2 171	449	0	0	0	0	7 646
Region total	17 001	25 735	41 516	31 313	38 895	22 830	4 487	261	81	3	1	182 123
East Coast Wood Supply Region												
Gisborne District	5 958	13 817	25 335	33 953	14 856	12 754	2 452	250	15	20	1	109 411
Region total	5 958	13 817	25 335	33 953	14 856	12 754	2 452	250	15	20	1	109 411
Hawke's Bay Wood Supply Region												
Wairoa District	4 259	7 676	8 225	13 378	1 694	3 084	999	56	2	1	0	39 374
Hastings District	1 630	6 181	7 368	10 038	3 340	3 744	537	232	C	C	1	33 081
Napier City	0	0	39	22	6	41	1	5	0	0	0	114
Central Hawke's Bay District	477	942	2 498	2 116	542	241	48	12	C	C	1	6 884
Region total	6 366	14 799	18 130	25 554	5 582	7 110	1 585	305	16	4	2	79 453
Southern North Island Wood Supply Region												
New Plymouth District	52	247	457	442	171	52	6	4	0	0	0	1 431
Stratford District	9	107	370	1 966	229	441	22	4	0	0	0	3 148
South Taranaki District	16	360	699	2 183	665	99	50	2	0	0	0	4 074
Wanganui District	1 508	1 367	2 004	6 159	2 707	773	137	8	4	0	0	14 667
Rangitikei District	48	419	4 461	1 829	924	C	112	C	2	0	0	8 162
Manawatu District	43	199	235	974	144	112	264	25	1	2	0	1 999
Palmerston North City	186	1	12	299	6	51	208	20	0	0	0	783
Horowhenua District	151	91	102	676	92	53	103	16	13	1	0	1 298
Tararua District	22	656	681	1 001	254	C	103	C	23	C	0	2 968
Kapiti Coast District	70	95	234	765	444	C	89	C	2	0	0	2 094
Upper Hutt City	648	781	665	392	538	C	437	45	32	C	0	4 377
Porirua City	0	55	18	408	180	12	6	60	3	0	0	742
Wellington City	0	8	30	253	5	12	0	0	0	0	0	308
Lower Hutt City	0	10	2	24	0	36	5	0	0	0	0	77
Masterton District	1 922	2 648	5 803	7 625	2 055	3 337	820	82	39	6	0	24 337
Carterton District	797	552	3 832	1 602	946	464	506	41	0	0	0	8 740
South Wairarapa District	123	625	1 719	1 990	452	164	43	14	0	0	0	5 130
Region total	5 595	8 221	21 324	28 588	9 812	7 188	2 911	566	119	11	0	84 335
North Island total	38 302	70 741	124 473	140 918	84 066	60 352	14 682	2 025	335	44	17	535 955

»» 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 and Marlborough Wood Supply Region												
Tasman District	411	1 433	5 460	6 753	3 441	2 310	366	18	12	0	1	20 205
Nelson City	62	18	175	480	337	525	60	1	0	0	0	1 658
Marlborough District	1 301	3 609	6 439	10 352	6 387	5 491	882	271	71	0	0	34 803
Kaikoura District	9	102	351	303	40	65	48	0	0	0	0	918
Region total	1 783	5 162	12 425	17 888	10 205	8 391	1 356	290	83	0	1	57 584
West Coast Wood Supply Region												
Buller District	293	14	612	448	351	C	C	0	0	0	0	2 066
Grey District	566	71	255	544	14	C	C	3	53	0	0	1 618
Westland District	471	140	467	214	9	13	13	47	6	0	0	1 380
Region total	1 330	225	1 334	1 206	374	396	90	50	59	0	0	5 064
Canterbury Wood Supply Region												
Hurunui District	79	497	1 759	1 504	487	644	249	62	14	3	1	5 299
Waimakariri District	11	86	95	525	89	58	5	0	3	0	0	872
Selwyn District	261	129	622	622	1 177	488	74	43	0	0	0	3 416
Christchurch City	176	282	702	1 839	272	345	65	52	1	0	1	3 735
Ashburton District	7	57	295	205	75	190	38	27	0	0	1	895
Mackenzie District	15	107	170	839	56	35	36	0	41	0	0	1 299
Timaru District	277	290	529	837	985	414	24	1	0	0	0	3 357
Waimate District	650	332	1 949	784	445	550	18	0	0	0	0	4 728
Region total	1 476	1 780	6 121	7 155	3 586	2 724	509	185	59	3	3	23 601
Otago and Southland Wood Supply Region												
Waitaki District	295	2 175	2 851	1 462	1 088	561	80	48	35	12	5	8 612
Queenstown-Lakes District	0	0	3	3	11	0	2	0	3	0	1	23
Central Otago District	5	62	121	527	43	139	86	43	1	0	1	1 028
Dunedin City	1 030	705	1 226	2 005	2 397	1 514	149	17	22	0	0	9 065
Clutha District	3 938	6 381	9 571	12 369	4 129	4 127	919	141	25	5	5	41 610
Southland District	1 255	1 816	4 089	5 542	1 992	1 295	425	160	68	0	0	16 642
Gore District	0	5	130	234	24	139	0	0	1	0	0	533
Invercargill City	8	59	60	91	63	82	89	23	3	5	0	483
Region total	6 531	11 203	18 051	22 233	9 747	7 857	1 750	432	158	22	12	77 996
South Island total	11 120	18 370	37 931	48 482	23 912	19 368	3 705	957	359	25	16	164 245
New Zealand total	49 422	89 111	162 404	189 400	107 978	79 720	18 387	2 982	694	69	33	700 200

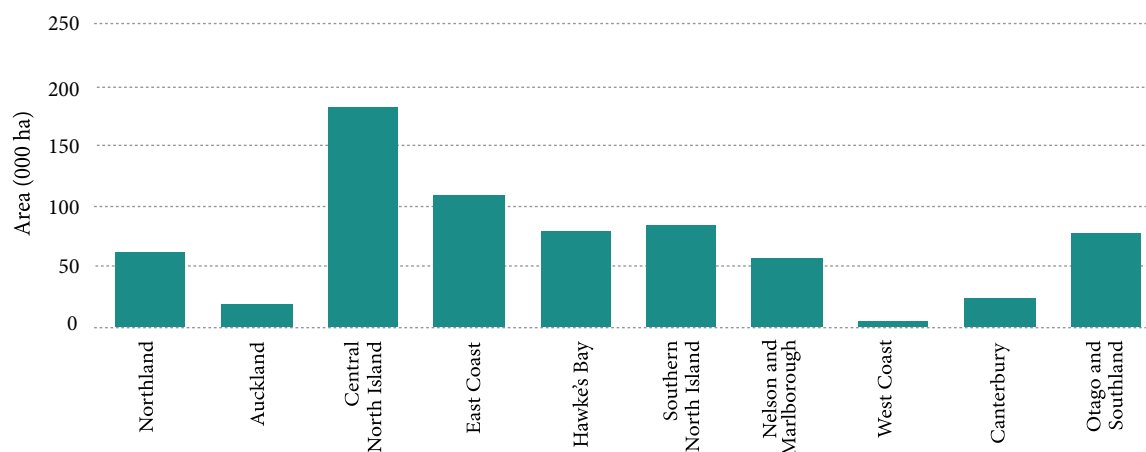
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

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



»» TABLE 9.18: AREA¹ OF RADIATA PINE UNPRUNED WITH PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	96	114	114	282	36	103	148	45	0	1	0	939
Whangarei District	0	0	0	1	0	0	0	3	0	0	0	4
Kaipara District	0	2	17	350	238	28	17	15	0	1	0	668
Rodney District	1	33	195	1 074	648	66	9	0	0	0	0	2 026
Region total	97	149	326	1 707	922	197	174	63	0	2	0	3 637
Auckland Wood Supply Region												
North Shore City	0	0	0	0	0	0	0	0	0	0	0	0
Waitakere City	0	0	0	0	0	0	0	0	0	0	0	0
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	0	0	0	0	0	0	0	0	0	0	0	0
Papakura District	0	0	0	0	0	0	0	0	0	0	0	0
Franklin District	0	0	16	251	0	0	0	0	0	4	0	271
Thames-Coromandel District	9	43	72	99	43	23	106	17	0	0	0	412
Hauraki District	0	0	0	0	0	0	0	0	0	0	0	0
Waikato District	0	0	3	11	0	0	0	0	0	0	0	14
Matamata-Piako District	0	0	0	0	0	0	0	0	0	0	0	0
Region total	9	43	91	361	43	23	106	17	0	4	0	697
Central North Island Wood Supply Region												
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	6	44	24	0	0	0	0	0	0	0	74
Otorohanga District	0	19	8	53	2	11	8	0	0	0	0	101
South Waikato District	0	4	9	20	0	0	0	0	0	0	0	33
Waitomo District	3	87	292	398	2	0	7	0	0	0	0	789
Taupo District	1 766	561	521	446	977	2 248	20	4	1	0	0	6 544
Tauranga City	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	131	207	803	683	1 094	72	37	2	0	0	0	3 029
Western Bay of Plenty District	323	163	208	169	50	130	2	0	0	0	0	1 045
Rotorua District	729	1 113	443	150	0	41	0	0	0	1	1	2 478
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	1 098	1 237	537	588	130	212	0	0	0	0	0	3 802
Opotiki District	0	12	12	2	0	221	0	0	0	0	0	247
Region total	4 050	3 409	2 877	2 533	2 255	2 935	74	6	1	1	1	18 142
East Coast Wood Supply Region												
Gisborne District	0	40	13	387	18	239	24	27	0	0	0	748
Region total	0	40	13	387	18	239	24	27	0	0	0	748
Hawke's Bay Wood Supply Region												
Wairoa District	0	8	68	299	0	38	0	0	0	0	0	413
Hastings District	0	6	61	525	11	5	35	5	2	0	0	650
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	1	23	8	7	15	3	1	0	0	0	58
Region total	0	15	152	832	18	58	38	6	2	0	0	1 121
Southern North Island Wood Supply Region												
New Plymouth District	0	4	6	73	0	0	0	0	0	0	0	83
Stratford District	0	0	0	0	0	0	0	0	0	0	0	0
South Taranaki District	0	0	0	12	0	3	0	2	0	0	0	17
Wanganui District	275	1	20	226	80	79	0	0	0	0	0	681
Rangitikei District	234	900	566	111	18	C	6	C	1	2	0	1 841
Manawatu District	0	1	1	10	0	55	0	0	0	0	0	67
Palmerston North City	0	0	1	41	0	0	0	0	0	0	0	42
Horowhenua District	247	347	302	279	5	14	1	0	14	22	2	1 233
Tararua District	1	18	63	154	19	C	5	C	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	28	0	0	8	0	0	0	0	0	0	36
Lower Hutt City	0	0	0	0	10	54	18	0	0	0	0	82
Masterton District	85	58	15	30	16	14	2	0	0	0	0	220
Carterton District	0	0	5	3	0	3	0	0	0	0	0	11
South Wairarapa District	2	130	92	34	10	6	3	2	0	0	0	279
Region total	844	1 487	1 071	983	166	246	35	13	15	24	2	4 886
North Island total	5 000	5 143	4 530	6 803	3 422	3 698	451	132	18	31	3	29 231

»» TABLE 9.18 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 and Marlborough Wood Supply Region												
Tasman District	60	201	C	C	64	122	131	C	C	0	0	1 507
Nelson City	0	0	C	C	0	0	0	0	0	0	0	12
Marlborough District	57	57	184	319	99	65	151	C	C	0	0	988
Kaikoura District	0	0	1	5	0	0	0	0	0	0	0	6
Region total	117	258	488	938	163	187	282	55	25	0	0	2 513
West Coast Wood Supply Region												
Buller District	0	0	0	0	0	0	0	0	0	0	0	0
Grey District	0	33	5	0	0	0	0	0	0	0	0	38
Westland District	0	0	0	0	0	0	4	0	0	0	0	4
Region total	0	33	5	0	0	0	4	0	0	0	0	42
Canterbury Wood Supply Region												
Hurunui District	2	68	207	426	100	58	54	1	30	0	0	946
Waimakariri District	0	11	37	129	25	12	5	5	6	0	2	232
Selwyn District	0	118	262	138	12	6	19	4	0	0	1	560
Christchurch City	0	9	88	21	3	7	0	0	1	0	0	129
Ashburton District	1	2	26	26	C	C	7	30	0	0	0	157
Mackenzie District	111	22	22	23	C	C	19	17	24	0	0	267
Timaru District	0	1	6	71	18	22	4	0	0	0	0	122
Waimate District	0	1	28	46	10	2	2	1	1	0	0	91
Region total	114	232	676	880	246	123	110	58	62	0	3	2 504
Otago and Southland Wood Supply Region												
Waitaki District	1	0	20	80	15	45	0	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	5	0	0	0	0	0	0	0	5
Clutha District	0	0	5	59	5	7	3	0	0	0	0	79
Southland District	65	106	158	157	78	15	57	10	51	0	0	697
Gore District	0	0	6	38	0	0	0	0	0	0	0	44
Invercargill City	0	1	5	5	0	0	0	0	0	0	0	11
Region total	66	107	195	347	98	67	60	10	51	0	0	1 001
South Island total	297	630	1 364	2 165	507	377	456	123	138	0	3	6 060
New Zealand total	5 297	5 773	5 894	8 968	3 929	4 075	907	255	156	31	6	35 291

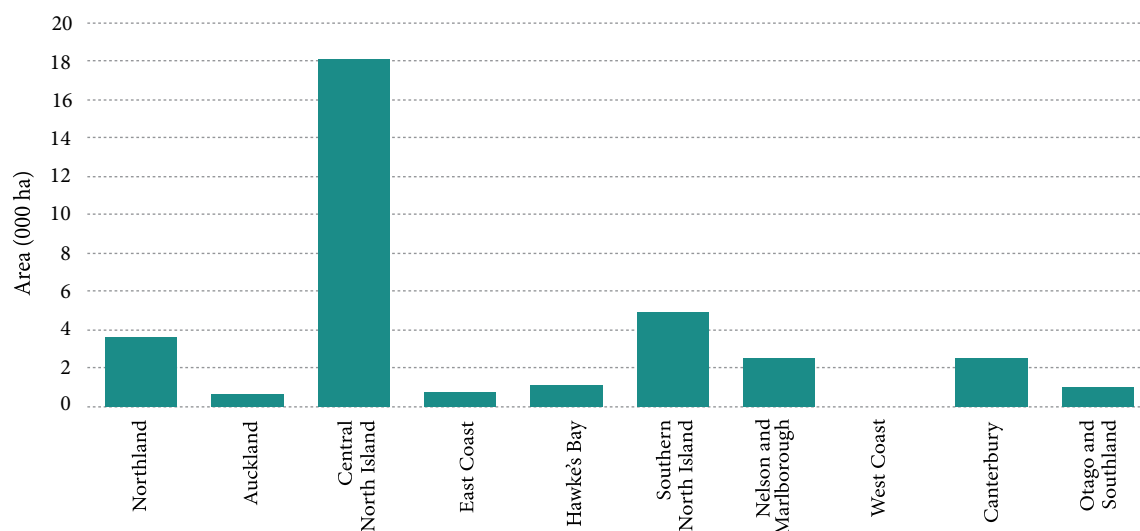
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

»» FIGURE 9.20: AREA OF RADIATA PINE UNPRUNED WITH PRODUCTION THINNING BY WOOD SUPPLY REGION



»» TABLE 9.19: AREA¹ OF RADIATA PINE UNPRUNED WITHOUT PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2011

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	6 913	5 791	3 911	3 670	4 626	8 260	534	548	61	1	0	34 315
Whangarei District	2 422	2 849	2 157	1 596	3 182	5 464	289	C	C	1	0	18 014
Kaipara District	2 015	2 500	3 770	2 792	7 413	2 867	87	60	27	0	4	21 535
Rodney District	3 808	5 966	5 170	2 508	439	406	171	C	C	3	10	18 675
Region total	15 158	17 106	15 008	10 566	15 660	16 997	1 081	787	157	5	14	92 539
Auckland Wood Supply Region												
North Shore City	0	0	0	0	0	0	0	0	0	0	0	0
Waitakere City	0	0	0	0	0	0	0	0	0	0	0	0
Auckland City	0	0	0	0	0	0	0	0	0	0	0	0
Manukau City	0	130	121	957	140	8	30	0	0	0	0	1 386
Papakura District	0	0	0	0	20	0	66	29	0	0	0	115
Franklin District	0	35	128	243	69	172	4	0	4	0	4	659
Thames-Coromandel District	5 090	4 074	2 772	2 156	984	2 018	654	128	57	11	20	17 964
Hauraki District	0	178	132	138	9	87	5	1	0	0	0	550
Waikato District	892	791	1 657	2 345	372	68	35	1	12	4	0	6 177
Matamata-Piako District	384	138	7	44	41	48	18	2	0	0	0	682
Region total	6 366	5 346	4 817	5 883	1 635	2 401	812	161	73	15	24	27 533
Central North Island Wood Supply Region												
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	14	124	115	18	6	25	0	0	0	2	304
Otorohanga District	0	264	642	612	68	137	4	15	0	0	0	1 742
South Waikato District	6 842	12 746	13 344	11 832	2 462	987	82	4	21	1	77	48 398
Waitomo District	3 284	2 336	1 236	1 263	163	367	96	0	0	0	0	8 745
Taupo District	3 682	11 553	14 137	9 117	3 558	3 558	269	44	46	12	7	45 983
Tauranga City	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	1 836	1 926	10 803	2 817	2 186	3 023	998	19	1	0	0	23 609
Western Bay of Plenty District	1 167	2 006	1 388	622	1 140	170	35	2	4	0	7	6 541
Rotorua District	2 324	3 301	2 448	2 801	1 516	383	36	5	31	0	8	12 853
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	9 762	7 874	4 372	4 554	551	401	48	38	9	33	1	27 643
Opotiki District	745	816	592	540	1 972	3 603	282	10	0	0	0	8 560
Region total	29 642	42 836	49 086	34 273	13 634	12 635	1 875	137	112	46	102	184 378
East Coast Wood Supply Region												
Gisborne District	3 693	6 689	9 381	6 857	3 018	5 597	1 153	893	58	3	6	37 348
Region total	3 693	6 689	9 381	6 857	3 018	5 597	1 153	893	58	3	6	37 348
Hawke's Bay Wood Supply Region												
Wairoa District	1 938	1 555	2 307	1 238	23	3 009	139	4	11	3	0	10 227
Hastings District	5 165	6 034	5 191	2 859	232	627	219	82	C	C	0	20 458
Napier City	0	0	0	1	0	6	0	0	0	0	0	7
Central Hawke's Bay District	19	260	2 249	519	214	223	47	41	C	C	14	3 624
Region total	7 122	7 849	9 747	4 617	469	3 865	405	127	68	33	14	34 316
Southern North Island Wood Supply Region												
New Plymouth District	0	90	153	246	49	21	19	23	0	0	0	601
Stratford District	336	349	199	478	32	361	8	0	0	0	0	1 763
South Taranaki District	5	314	419	881	288	186	68	24	18	3	1	2 207
Wanganui District	711	1 230	1 186	1 382	19	50	44	6	6	0	9	4 643
Rangitikei District	2	413	3 215	1 246	96	114	71	100	181	8	0	5 446
Manawatu District	41	374	333	670	49	154	110	17	6	0	4	1 758
Palmerston North City	301	43	34	71	32	51	195	59	0	0	0	786
Horowhenua District	363	564	101	556	42	45	121	33	0	0	2	1 827
Tararua District	372	794	4 007	2 497	328	C	C	41	19	C	2	8 764
Kapiti Coast District	0	182	215	15	21	C	C	10	1	0	0	557
Upper Hutt City	5	207	203	253	361	C	91	9	160	C	0	1 510
Porirua City	0	0	2	283	508	76	0	0	0	0	0	869
Wellington City	0	0	23	16	19	0	0	0	0	0	0	58
Lower Hutt City	0	0	2	26	0	7	18	5	0	0	0	58
Masterton District	368	1 162	1 196	2 011	442	564	275	199	156	9	0	6 382
Carterton District	165	608	1 236	616	160	150	48	86	70	4	0	3 143
South Wairarapa District	16	529	472	429	236	192	97	100	61	1	1	2 134
Region total	2 685	6 859	12 996	11 676	2 682	2 654	1 504	712	678	41	19	42 506
North Island total	64 666	86 685	101 035	73 872	37 098	44 149	6 830	2 817	1 146	143	179	418 620

»» TABLE 9.19 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 and Marlborough Wood Supply Region												
Tasman District	14 153	12 860	7 298	9 415	3 802	2 864	643	117	156	15	13	51 336
Nelson City	2 170	1 533	1 121	1 186	280	256	0	11	1	0	0	6 558
Marlborough District	5 295	3 963	4 477	6 671	1 607	1 589	678	279	120	27	2	24 708
Kaikoura District	0	23	32	26	2	20	6	0	1	2	0	112
Region total	21 618	18 379	12 928	17 298	5 691	4 729	1 327	407	278	44	15	82 714
West Coast Wood Supply Region												
Buller District	6	176	91	114	7	C	C	3	4	0	0	522
Grey District	1 588	2 593	1 778	1 312	623	C	C	68	89	0	0	10 313
Westland District	1 131	934	2 117	1 006	403	346	325	122	15	1	0	6 400
Region total	2 725	3 703	3 986	2 432	1 033	2 500	554	193	108	1	0	17 235
Canterbury Wood Supply Region												
Hurunui District	1 981	4 139	5 487	3 903	2 909	1 357	111	5	6	8	6	19 912
Waimakariri District	495	1 011	2 446	2 320	1 409	312	58	11	15	36	0	8 113
Selwyn District	284	498	759	998	278	346	149	342	23	2	0	3 679
Christchurch City	107	153	483	451	257	132	170	51	5	1	22	1 832
Ashburton District	278	272	311	174	50	115	115	11	8	6	14	1 354
Mackenzie District	39	31	76	221	27	12	5	40	14	2	0	467
Timaru District	58	76	343	775	230	49	10	0	11	0	0	1 552
Waimate District	4	269	518	347	251	534	95	28	22	24	5	2 097
Region total	3 246	6 449	10 423	9 189	5 411	2 857	713	488	104	79	47	39 006
Otago and Southland Wood Supply Region												
Waitaki District	311	609	594	758	268	371	50	29	18	12	2	3 022
Queenstown-Lakes District	0	10	14	24	12	5	13	0	1	20	6	105
Central Otago District	0	95	133	311	23	35	34	4	8	4	32	679
Dunedin City	226	35	95	421	180	706	251	5	10	13	1	1 943
Clutha District	1 884	4 291	3 308	2 215	850	975	289	63	10	10	5	13 900
Southland District	2 127	4 702	4 387	4 400	2 258	2 444	331	127	92	16	0	20 884
Gore District	6	46	389	376	32	23	24	6	20	1	0	923
Invercargill City	0	4	33	17	14	31	8	0	4	0	0	111
Region total	4 554	9 792	8 953	8 522	3 637	4 590	1 000	234	163	76	46	41 567
South Island total	32 143	38 323	36 290	37 441	15 772	14 676	3 594	1 322	653	200	108	180 522
New Zealand total	96 809	125 008	137 325	111 313	52 870	58 825	10 424	4 139	1 799	343	287	599 142

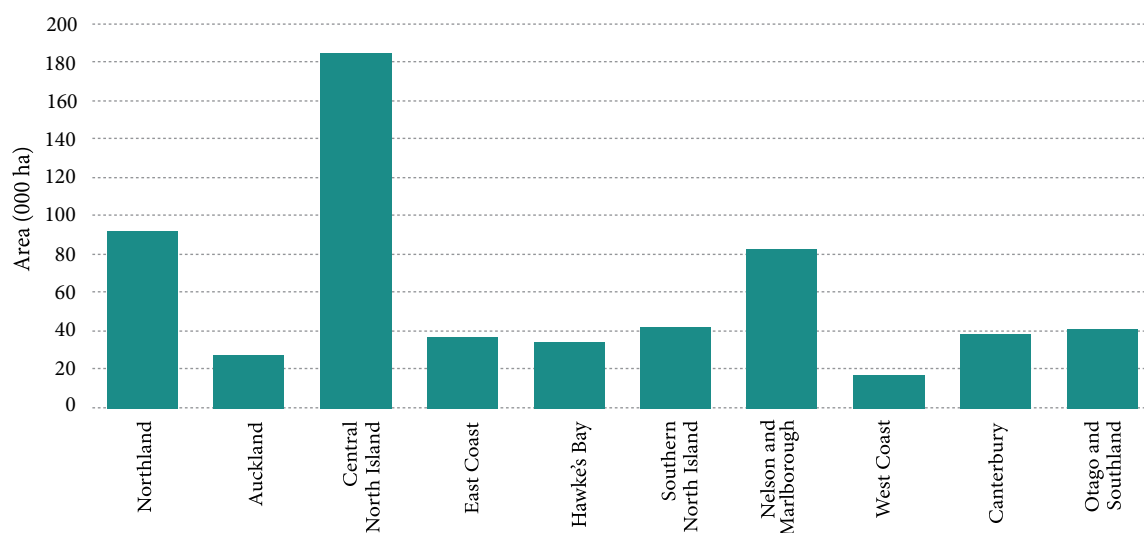
Note

1. Net stocked planted production forest area.

Symbol

C Confidential.

»» FIGURE 9.21: 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 2011 if it was planted in the preceding 12-month period, that is, between 1 April 2010 and 31 March 2011.

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 on pages 14–17).

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. Ten regions were identified by the NEFD Steering Committee in 1989 (see Table 7.1 and Figures 7.1 and 7.2 on pages 14–17).

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: 2011 NEFD QUESTIONNAIRE

SECTION A: FOREST OWNERSHIP

1. Please tick one category which best describes the ownership of the majority of your forest:

- ☐ privately owned
 ☐ registered public company
☐ local government
 ☐ central government
☐ state owned enterprise
 ☐ other (please specify) _____

- Note that the following information from this section does not go into any publication, but is used only to ensure that data has been collected from the current owner, and to follow up any apparent problems to ensure that data is correct. This is important when forest ownership changes occur.
- 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.

2. Did your enterprise sell any forest or forest land during the period 1 April 2010 to 31 March 2011?

- ☐ NO ► Go to question 3.
☐ YES ► What did your enterprise sell? (tick one circle only)
☐ sold forest only
 ☐ sold land only
 ☐ sold both forest and land

Give details of the new owner, the forest location and the area sold:

Name of new owner
 New owner's address
 Name of forest/land sold
 Territorial authority where forest/land is located
 Area of forest/land sold (hectares)

3. If your enterprise purchased or leased new forest or forest land during the period 1 April 2010 to 31 March 2011, please give details of the previous owner, the forest/land location and the area purchased or leased:

Name of previous owner
 Previous owner's address
 Name of forest/land purchased or leased
 Territorial authority where forest/land purchased or leased is located
 Area of forest purchased or leased (hectares)

4. If your enterprise harvested forest from a lease or joint venture, including forestry rights, during the period 1 April 2010 to 31 March 2011 and another party will now be responsible for future use of the land (e.g. you have handed back the land), please give details of the other party and land areas for which they are now responsible:

Land owner's name
 Land owner's address
 Name of land
 Territorial authority where land is located
 Land area (hectares)

SECTION B: AREA BY AGE DATA AS AT 1 APRIL 2011

>>> INSTRUCTIONS

This questionnaire contains one or more pages pre-printed with the forest area by age data your enterprise reported in the previous survey.

- Please review and update the enclosed pre-printed pages. If there has been no change, you need only tick the circle on each page.
- Please note that second and subsequent rotation forests need to be recorded on a separate form to first rotation forests.
- If you have forest area that is not included on the pre-printed pages, please provide this information using the blank form at the end of **Section B**.
- MAF needs forest data split by forest species, tending regimes, rotation and location. If any one of the following attributes is different for a forest area owned/managed by you, please use a separate copy of the blank form at the end of **Section B** for that forest area:
 - o Territorial authority where the forest is located
 - o Forest owner's name
 - o Rotation number (either first or second and subsequent rotations)
 - o Species
 - o Tending regime
- Additional blank forms are available from Survey Support on 0800 778 901 or email NEFD@maf.govt.nz. Alternatively, photocopy the blank form at the end of **Section B** – Blank area by age data form.

NEED HELP OR INFORMATION?

> See the guide notes

> Contact survey support 0800 778 901

SECTION B CONTINUED: AREA BY AGE DATA AS AT 1 APRIL 2011 – BLANK FORM

ONLY COMPLETE FOR FORESTS NOT INCLUDED ON THE PRE-PRINTED PAGES

- Please complete the following questions 1 to 7. If you cannot give only one answer for each question, please use a separate form. If you are unsure, phone Survey Support on 0800 778 901 or email NEFD@maf.govt.nz.
- Note that the data provided in Section B will be reported at a territorial authority level.

1. Territorial authority where the forest is located:
2. Forest owner's name:
3. Rotation number (tick one circle only)
☐ first rotation ☐ second or subsequent rotation
4. Species (tick one circle only)
☐ radiata pine ▶ go to 5. ☐ Douglas-fir ▶ go to 6. ☐ cypress species ▶ go to 7.
☐ other softwoods ▶ go to 7. ☐ eucalyptus ▶ go to 7. ☐ other hardwoods ▶ go to 7.
5. Radiata pine tending regime or intended tending regime (tick one circle only)
☐ pruned with production thinning ☐ pruned withOUT production thinning ☐ unpruned with production thinning ☐ unpruned withOUT production thinning
6. Douglas-fir tending regime or intended tending regime (tick one circle only)
☐ with production thinning ☐ withOUT production thinning
7. As at 1 April 2011 give the area in hectares of trees of each age, and the total area. Hectares may be given to one decimal point.

year planted	age in 2011	net area (ha)	year planted	age in 2011	net area (ha)	year planted	age in 2011	net area (ha)	year planted	age in 2011	net area (ha)
2010	1		1989	22		1968	43		1947	64	
2009	2		1988	23		1967	44		1946	65	
2008	3		1987	24		1966	45		1945	66	
2007	4		1986	25		1965	46		1944	67	
2006	5		1985	26		1964	47		1943	68	
2005	6		1984	27		1963	48		1942	69	
2004	7		1983	28		1962	49		1941	70	
2003	8		1982	29		1961	50		1940	71	
2002	9		1981	30		1960	51		1939	72	
2001	10		1980	31		1959	52		1938	73	
2000	11		1979	32		1958	53		1937	74	
1999	12		1978	33		1957	54		1936	75	
1998	13		1977	34		1956	55		1935	76	
1997	14		1976	35		1955	56		1934	77	
1996	15		1975	36		1954	57		1933	78	
1995	16		1974	37		1953	58		1932	79	
1994	17		1973	38		1952	59		1931 or earlier	80+	
1993	18		1972	39		1951	60				
1992	19		1971	40		1950	61				
1991	20		1970	41		1949	62				
1990	21		1969	42		1948	63		TOTAL AREA		

NEED HELP OR INFORMATION?

> See the guide notes

> Contact survey support 0800 778 901

SECTION C: PLANTING AND HARVESTING

1. Between 1 April 2010 and 31 March 2011, did your enterprise carry out any planting or harvesting?

☐ YES ☐ NO ► Go to **Section D: Confidentiality**

- Please use a separate form for each territorial authority in which you planted or harvested. Make as many copies as you need of the blank form below to complete this. Additional copies are available from Survey Support on 0800 778 901 or email NEFD@mat.govt.nz.
- Note the data supplied in **Section C** will be reported at the national level.

2. Territorial authority in which this forest is located:

3. Planting for the year ended 31 December 2010:

Species	New planted area for year ended Dec 2010 Give the area planted on a site not already in use for growing commercial plantation forest (i.e. first rotation forest).	Area replanted for year ended Dec 2010 Give the area of clear felled forest which was replanted (i.e. second and subsequent rotations).
Radiata pine	<input type="text"/> ha	<input type="text"/> ha
Douglas-fir	<input type="text"/> ha	<input type="text"/> ha
Cypress species	<input type="text"/> ha	<input type="text"/> ha
Other softwoods	<input type="text"/> ha	<input type="text"/> ha
Eucalypts species	<input type="text"/> ha	<input type="text"/> ha
Other hardwoods	<input type="text"/> ha	<input type="text"/> ha
Total	<input type="text"/> ha	<input type="text"/> ha

4. Of the total new area planted in question 3, how much was planted on land which was previously:

Other woody land	<input type="text"/> ha	land predominantly covered in bracken, gorse, manuka, kanuka, or other woody species
Unimproved pasture	<input type="text"/> ha	land not fertilised, with no improved pasture species sown
Improved pasture	<input type="text"/> ha	land that has been fertilised and contains improved pasture species
Total new planted area	<input type="text"/> ha	Note this total should be the same as the total new planted area in question 3

5. Harvesting for the year ended 31 March 2011: Note that 1 tonne = about 1m³.

Species	Area clear felled	Clear felled volume (recovered)	Average age clear felled (area-weighted)	Production thinning volume (recovered)
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
Other softwoods	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³
Eucalypts species	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³
Other hardwoods	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³
Total	<input type="text"/> ha	<input type="text"/> m ³	<input type="text"/> years	<input type="text"/> m ³

6. Radiata pine clear felled volume sold by log grade for the year ended 31 March 2011 (radiata pine clear felled volume only):

Clear felled volume (recovered)	Pruned logs	Unpruned sawlogs	Pulp/chip logs	Total (equal to radiata pine clear felled volume in question 5)
Sold as	<input type="text"/> m ³	<input type="text"/> m ³	<input type="text"/> m ³	<input type="text"/> m ³

- Please note all the information provided in this questionnaire will be used only for statistical purposes. Only aggregated statistics will be published. Details provided by individual owners will only be seen by people who are directly involved with running this survey.

NEED HELP OR INFORMATION?

> See the guide notes

> Contact survey support 0800 778 901

7. On 31 March 2011, what area of harvested land was awaiting replanting (i.e. area clear felled and intended to be replanted but not yet replanted)? Note if area is zero please write "0". ha
8. On 31 March 2011, what area of harvested land was awaiting a land use decision? (i.e. area that has been harvested for which a decision on whether to replant or convert has not yet been made) Note if area is zero please write "0". Exclude area given in Question 7 in Section C and land handed back to landowner as stated in Section A. ha
9. Between 1 April 2010 and 31 March 2011, has your enterprise converted (or are in the process of being converted) to a non-forest land use?
☐ YES ☐ NO ► Go to **Section D: Confidentiality**
 ▼
10. Of the area clear felled between 1 April 2010 and 31 March 2011, what area was converted (or are in the process of being converted) to a non-forest land use? Note if area is zero please write "0". ha
11. Between 1 April 2010 and 31 March 2011, what area of immature forest was converted (or are in the process of being converted) to a non-forest land use? Note if area is zero please write "0". Exclude area given in Question 10 in Section C. See guide notes for more information. ha

SECTION D: CONFIDENTIALITY

- For more information please see the guide notes, phone Survey Support on 0800 778 901 or email NEFD@maf.govt.nz

1. To make the data collected from this survey as useful as possible, MAF seeks your permission to publish the regional area tables which contain your data whether or not it meets MAF's standard confidentiality rules. In previous NEFD reports some regional tables have not met MAF's standard confidentiality rules when one or two owners manage most of the forest area in one territorial authority. All contact details are held in confidence and not published.

If you tick yes, then data which includes your forest area will be published in the 2011 NEFD report whether or not it meets MAF's standard confidentiality rules. Data will be published in the same format as previous NEFD reports. This ensures the information collected from this survey is as useful as possible.

If you tick no, and there are fewer than three owners' data in a category (e.g. species/territorial authority/age class) or one owner's data contributes more than 80 percent of a category's value, then MAF will not publish the results in the NEFD tables.

For more information please refer to the guide notes for **Section D** or contact Survey Support on 0800 778 901 or email NEFD@maf.govt.nz.

I agree to the Ministry of Agriculture and Forestry publishing the forest data that I have supplied for the 2011 NEFD survey.

☐ YES ☐ NO

2. Approval to use contact details and total forest area for biosecurity and emergency events only:

I agree to the Ministry of Agriculture and Forestry 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

CONTINUED ►

NEED HELP OR INFORMATION?

► See the guide notes

► Contact survey support 0800 778 901

APPENDIX 3: NEW PLANTING

IMPUTATION METHODOLOGY

Since 1992, MAF 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 2010 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 26–27).

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 2011 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 4: THE NEFD

STEERING COMMITTEE

The NEFD Steering Committee has been constituted by the New Zealand Forest Owners Association and the Ministry of Agriculture and Forestry 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
Alan Bell Alan Bell & Associates	New Zealand Forest Owners Association
Philip Elworthy Rayonier New Zealand Ltd	New Zealand Forest Owners Association
Stuart Anderson Ministry of Agriculture and Forestry	Ministry of Agriculture and Forestry
Chris Goulding SCION	Ministry of Agriculture and Forestry
Ian Hinton (Chairman) Timberlands Ltd	New Zealand Forest Owners Association
Ross Jones Hancock Forest Management	New Zealand Forest Owners Association
Paul Lane Ministry of Agriculture and Forestry	Ministry of Agriculture and Forestry
Hamish Levack Farm Forestry Association	Ministry of Agriculture and Forestry
Jane Davidson Ministry of Agriculture and Forestry	Ministry of Agriculture and Forestry
Bruce Manley School of Forestry, University of Canterbury	Ministry of Agriculture and Forestry
Peter Oliver City Forests	New Zealand Forest Owners Association
John Novis Ministry of Agriculture and Forestry	Ministry of Agriculture and Forestry
Guy Sanders Statistics New Zealand	Ministry of Agriculture and Forestry
Alice Marfell-Jones Ministry of Agriculture and Forestry	Ministry of Agriculture and Forestry
Fiona Thomson Ministry of Agriculture and Forestry	Ministry of Agriculture and Forestry

APPENDIX 5: THE NEFD STEERING COMMITTEE'S

TERMS OF REFERENCE

The New Zealand Forest Owners Association and the Ministry of Agriculture and Forestry 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 of Agriculture and Forestry 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 Director-General of Agriculture and Forestry 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 Director-General of Agriculture and Forestry 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 of Agriculture and Forestry 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 6:

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 of Agriculture and Forestry (2011) *Annual Log and Roundwood Removal Statistics*. <http://www.maf.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 (2010) *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/browse_for_stats/industry_sectors/agriculture-horticulture-forestry/agriculturalproduction_hotpjun10prov.aspx

APPENDIX 7:

FURTHER INFORMATION

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

Information and Analysis

Ministry of Agriculture and Forestry

PO Box 2526

Wellington, 6140

Telephone: 0800 008 333

Facsimile: 64-4-894 0741

Email: stats_info@maf.govt.nz

An electronic copy of this report is available on the New Zealand Ministry of Agriculture and Forestry's internet site: <http://www.maf.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 of Agriculture and Forestry 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 of Agriculture and Forestry 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.