

# NATIONAL EXOTIC FOREST DESCRIPTION AS AT 1 APRIL 2014



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#### ENQUIRIES

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# CONTENTS

LIST OF TABLES	iv	APPENDIX 1: GLOSSARY	56
LIST OF FIGURES	iv	APPENDIX 2: HISTORICAL STANDING VOLUME COMPARING YIELD TABLE SETS	58
INTRODUCTION	1	APPENDIX 3: 2013 NEFD QUESTIONNAIRE	59
OVERVIEW	2	APPENDIX 4: NEW PLANTING IMPUTATION METHODOLOGY	69
Key facts	2	Assumptions	69
DATA COLLECTION AND ESTIMATION	6	APPENDIX 5: THE NEFD STEERING COMMITTEE	70
New planting imputation	7	APPENDIX 6: THE NEFD STEERING COMMITTEE'S TERMS OF REFERENCE	71
DATA DESCRIPTION	8	APPENDIX 7: REFERENCES	72
Area data	8	APPENDIX 8: FURTHER INFORMATION	73
Yield tables	8		
Planting and harvesting data	8		
Other attributes	8		
New Zealand land use map	8		
RELIABILITY OF DATA	9		
NEFD surveys	10		
Yield tables	10		
New planting and replanting estimates	11		
PLANTING AND HARVESTING ESTIMATES	11		
Harvesting data	12		
Wood availability forecasts	12		
WOOD SUPPLY REGIONS AND TERRITORIAL AUTHORITIES	14		
FOREST LOCATION	18		
TABULAR SUMMARIES AND GRAPHS	20		
Planting, ownership, number of owners and standing volume	20		
Species	33		
Radiata pine tending regime	47		

## LIST OF TABLES

2.1: NATIONAL EXOTIC FOREST ESTATE STATISTICS	3
3.1: COMPARISON OF TOTAL NEW PLANTING WITH NEW PLANTING COLLECTED IN POSTAL SURVEYS	6
5.1: TOTAL AREA REPRESENTED BY EACH DATA SOURCE IN THE 2014 NEFD DATABASE	9
6.1: LAND COVER PRIOR TO NEW PLANTING	11
7.1: WOOD SUPPLY REGIONS AND CONSTITUENT TERRITORIAL AUTHORITIES	14
9.1: NEW LAND PLANTED IN PRODUCTION FOREST IN NEW ZEALAND	20
9.2: PLANTED PRODUCTION FOREST AREA IN NEW ZEALAND	21
9.3: FOREST OWNERSHIP, AS AT 1 APRIL 2014	22
9.4: FOREST AREA BY ANNUAL AGE CLASS, AS AT 1 APRIL 2014	23
9.5: NUMBER OF FOREST OWNERS BY NATIONAL SIZE CLASS, AS AT APRIL 2014	24
9.6: FOREST AREA BY FOREST OWNER NATIONAL SIZE CLASS, AS AT 1 APRIL 2014	25
9.7: FOREST AREA COLLECTED BY POSTAL SURVEY AND ADJUSTMENTS FOR NEW PLANTING, AS AT 1 APRIL 2014	26
9.8: AREA, STANDING VOLUME AND AREA-WEIGHTED AVERAGE AGE BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	28
9.9: FOREST AREA BY AGE CLASS AND TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	30
9.10: AREA PLANTED IN RADIATA PINE BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	34
9.11: AREA PLANTED IN DOUGLAS-FIR BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	36
9.12: AREA PLANTED IN CYPRESS SPECIES BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	38
9.13: AREA PLANTED IN OTHER SOFTWOODS BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	40
9.14: AREA PLANTED IN EUCALYPTS SPECIES BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	42
9.15: AREA PLANTED IN OTHER HARDWOODS BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	44
9.16: AREA OF RADIATA PINE PRUNED WITH PRODUCTION THINNING, BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	48
9.17: AREA OF RADIATA PINE PRUNED WITHOUT PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	50
9.18: AREA OF RADIATA PINE UNPRUNED WITH PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	52
9.19: AREA OF RADIATA PINE UNPRUNED WITHOUT PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014	54
APPENDIX 2: TIME SERIES OF STANDING VOLUME UNDER 1995 & 2009 YIELD TABLES	58

## LIST OF FIGURES

2.1: TOTAL ESTIMATED PLANTED PRODUCTION FOREST AREA BY AGE CLASS, AS AT 1 APRIL 2014	2
2.2: SPECIES DISTRIBUTION – 2014	4
2.3: RADIATA PINE BY TENDING REGIME – 2014	4
2.4: NEW FOREST PLANTING 1920–2014	5
2.5: RADIATA PINE HARVEST VOLUME BY LOG TYPE, YEAR ENDED 31 MARCH 2014	5
6.1: HISTORICAL HARVESTING AREA 1990–2014	12
6.2: HISTORICAL HARVESTING VOLUME 1990–2014	13
7.1: NORTH ISLAND WOOD SUPPLY REGIONS SHOWING TERRITORIAL AUTHORITY BOUNDARIES	16
7.2: SOUTH ISLAND WOOD SUPPLY REGIONS SHOWING TERRITORIAL AUTHORITY BOUNDARIES	17
8.1: DISTRIBUTION OF PLANTED FORESTS BY WOOD SUPPLY REGION – NORTH ISLAND, 2008	18
8.2: DISTRIBUTION OF PLANTED FORESTS BY WOOD SUPPLY REGION – SOUTH ISLAND, 2008	19
9.1: NEW LAND PLANTED IN PRODUCTION FOREST IN NEW ZEALAND	20
9.2: PLANTED PRODUCTION FOREST AREA IN NEW ZEALAND	21
9.3: FOREST OWNERSHIP	22
9.4: FOREST AREA BY ANNUAL AGE CLASS	23
9.5: NUMBER OF FOREST OWNERS BY NATIONAL SIZE CLASS	24
9.6: FOREST AREA BY NATIONAL SIZE CLASS	25
9.7: TOTAL FOREST AREA BY WOOD SUPPLY REGION	27
9.8: STANDING VOLUME BY WOOD SUPPLY REGION	29
9.9: FOREST AREA BY AGE CLASS AND WOOD SUPPLY REGION	31
9.10: FOREST AREA BY AGE CLASS AND SPECIES, AS AT 1 APRIL 2014	33
9.11: AREA PLANTED IN RADIATA PINE BY WOOD SUPPLY REGION	35
9.12: AREA PLANTED IN DOUGLAS-FIR BY WOOD SUPPLY REGION	37
9.13: AREA PLANTED IN CYPRESS SPECIES BY WOOD SUPPLY REGION	39
9.14: AREA PLANTED IN OTHER SOFTWOODS BY WOOD SUPPLY REGION	41
9.15: AREA PLANTED IN EUCALYPTS SPECIES BY WOOD SUPPLY REGION	43
9.16: AREA PLANTED IN OTHER HARDWOODS BY WOOD SUPPLY REGION	45
9.17: RADIATA PINE FOREST AREA BY AGE CLASS AND TENDING REGIME, AS AT 1 APRIL 2014	47
9.18: AREA OF RADIATA PINE PRUNED WITH PRODUCTION THINNING BY WOOD SUPPLY REGION	49
9.19: AREA OF RADIATA PINE PRUNED WITHOUT PRODUCTION THINNING BY WOOD SUPPLY REGION	51
9.20: AREA OF RADIATA PINE UNPRUNED WITH PRODUCTION THINNING BY WOOD SUPPLY REGION	53
9.21: AREA OF RADIATA PINE UNPRUNED WITHOUT PRODUCTION THINNING BY WOOD SUPPLY REGION	55

# INTRODUCTION

# 1

This is the 31st 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 2014. It represents the net stocked area of the planted production forest estate; that is, all exotic forests planted with the primary intention of producing wood or wood fibre.

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

The report provides:

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

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

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

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

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

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

# OVERVIEW

# 2

## KEY FACTS

- New Zealand's net stocked planted production forests covered an estimated 1.75 million hectares as at 1 April 2014.
- The total planted forest standing volume is estimated to be 494 million cubic metres with an average forest standing age (area weighted) of 16.8 years.
- As at 1 April 2014, New Zealand's net stocked forest area has increased by 18 000 hectares from 1 April 2013. This increase in area is the result of a previously unknown large forest entering the sample.
- Harvested areas awaiting either replanting or a land use decision decreased by 7200 hectares in the year to 1 April 2014.
- Of the total forest area, the Central North Island wood supply region makes up 34 percent of the entire planted forest estate, comprising more planted forest than the entire South Island.
- The second and third largest areas of planted forest are in the Otago/Southland and Northland wood supply regions, respectively.

Table 2.1 (page 3) provides key national forestry statistics as at 1 April 2014 and compares these with statistics for 2013.

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

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

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

FIGURE 2.1: TOTAL ESTIMATED PLANTED PRODUCTION FOREST AREA BY AGE CLASS, AS AT 1 APRIL 2014<sup>1</sup>



### Note

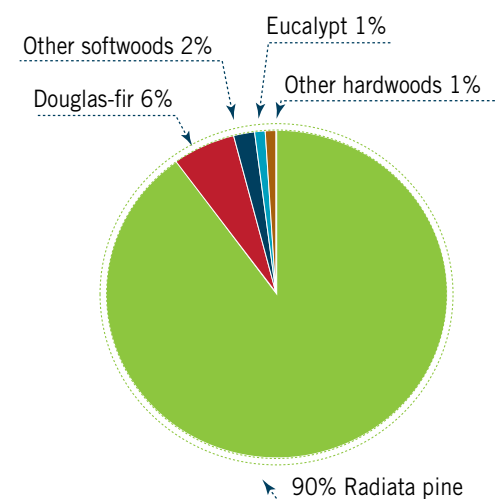
1. The area is shown for each age in single years up to 35 years. After this, age classes are aggregated.

TABLE 2.1: NATIONAL EXOTIC FOREST ESTATE STATISTICS

AREA AND STANDING VOLUME STATISTICS	AS AT 1 APRIL 2013 <sup>1</sup>	AS AT 1 APRIL 2014
<b>FOREST AREA</b>		
Net stocked area (ha)	1 728 500	1 746 500 <sup>5</sup>
Harvested area awaiting replanting (ha) <sup>2</sup>	51 869	44 642
<b>Total forest area</b>	<b>1 780 369</b>	<b>1 791 142<sup>5</sup></b>
<b>GROWTH CHARACTERISTICS</b>		
Standing volume (000 m <sup>3</sup> )	512 137 <sup>9</sup>	493 723 <sup>9</sup>
Average standing volume (m <sup>3</sup> /ha)	296	283 <sup>9</sup>
Area-weighted average age (years)	16.8	16.8
<b>AREA BY SPECIES<sup>3</sup></b>		
Radiata pine (ha)	1 553 700	1 572 200
Douglas-fir (ha)	106 500	105 200
Cypress species (ha)	10 100	9 900
Other softwoods (ha)	23 600	23 000
Eucalyptus species (ha)	22 000	23 800
Other hardwoods (ha)	12 600	12 400
<b>RADIATA PINE AREA BY TENDING REGIME</b>		
Pruned with production thinning (ha)	203 300	196 300
Pruned without production thinning (ha)	687 200	651 000
Unpruned with production thinning (ha)	40 800	35 100
Unpruned without production thinning (ha)	622 300	689 800
<b>PLANTING STATISTICS</b>	<b>YEAR ENDED 31 DECEMBER 2012</b>	<b>YEAR ENDED 31 DECEMBER 2013</b>
<b>NEW PLANTING<sup>4</sup></b>		
Total estimated new planting (ha)	11 500 <sup>6</sup>	3 500
Restocking (ha)	45 154 <sup>6</sup>	40 867
<b>HARVESTING STATISTICS<sup>7</sup></b>	<b>YEAR ENDED 31 MARCH 2013</b>	<b>YEAR ENDED 31 MARCH 2014</b>
<b>HARVESTING</b>		
Area clear felled – all species (ha)	50 342 <sup>6</sup>	46 001
Area clear felled – radiata pine (ha)	47 384 <sup>6</sup>	42 986
Volume clear felled – all species (000 m <sup>3</sup> )	26 296 <sup>6</sup>	23 437
Volume production thinned – all species (000 m <sup>3</sup> )	307 <sup>6</sup>	244
Total volume removed – all species (000 m <sup>3</sup> ) <sup>8</sup>	26 603 <sup>6</sup>	23 681
Average clear fell yield – all species (m <sup>3</sup> /ha)	522 <sup>6</sup>	515
Volume clear felled – radiata pine (000 m <sup>3</sup> )	25 131 <sup>6</sup>	22 331
Average clear fell yield – radiata pine (m <sup>3</sup> /ha)	530 <sup>6</sup>	519
Area-weighted average clear fell age for radiata pine (years)	27.7	28.9

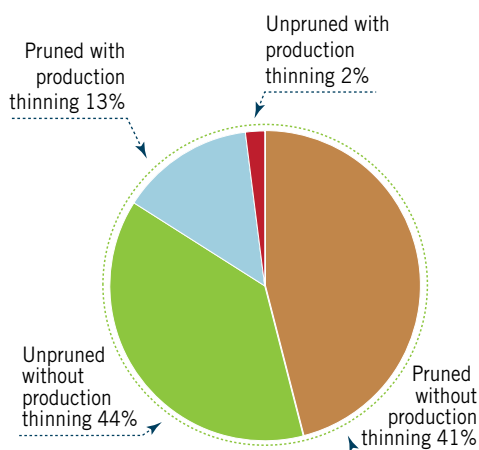
**Notes**

1. Source: *National Exotic Forest Description as at 1 April 2013*, Ministry for Primary Industries, 2013.
2. In this report, the area of harvested land that was recorded as awaiting a land use decision has been reported in the area awaiting replanting.
3. Individual entries may not add to totals due to rounding. Breakdowns by Territorial Authority can be found in chapter 9.
4. The forestry statistics released in this report, and in particular, new planting estimates, may differ from those produced in the *Agricultural Production Survey by Statistics New Zealand*. These surveys use different survey frames and methodologies.
5. The increase in area for 2014 is the result of a previously unknown large forest entering the sample.
6. The 2013 survey only sought data from owners with 1000 hectares of forest or more. These estimates have been rated up based on the 2012 NEFD survey results for owners with less than 1000 hectares of forest.
7. All volumes are reported as recovered volumes inside bark.
8. These estimates are based on data collected in the 2014 NEFD survey and may differ from the roundwood removals estimate as published in the *Annual log and roundwood removal statistics*, Ministry for Primary Industries. This is due to the estimate from that source being an indirect estimate that uses conversion factors for each forestry product to estimate the total roundwood input that would be required to produce total forest product outputs.
9. In the 2014 NEFD onwards standing volume is calculated using an updated set of yield tables. A back series containing a comparison of standing volume calculated using the two different sets of yield tables can be found in Appendix 2, page 58.

FIGURE 2.2: SPECIES DISTRIBUTION – 2014<sup>1</sup>**Note**

1. Other softwoods include cypress species.

FIGURE 2.3: RADIATA PINE BY TENDING REGIME – 2014

**SPECIES**

As seen in Figure 2.2, radiata pine is the dominant species, making up 90 percent of the planted production forest area. Newly planted areas of radiata pine were recorded in eastern and central parts of the North Island. In 2014, the total planted area of known radiata pine resource increased by 18 500 hectares. Douglas-fir decreased in area by 1300 hectares. All other species, with the exception of Eucalypts, showed minor decreases in area.

**SILVICULTURE**

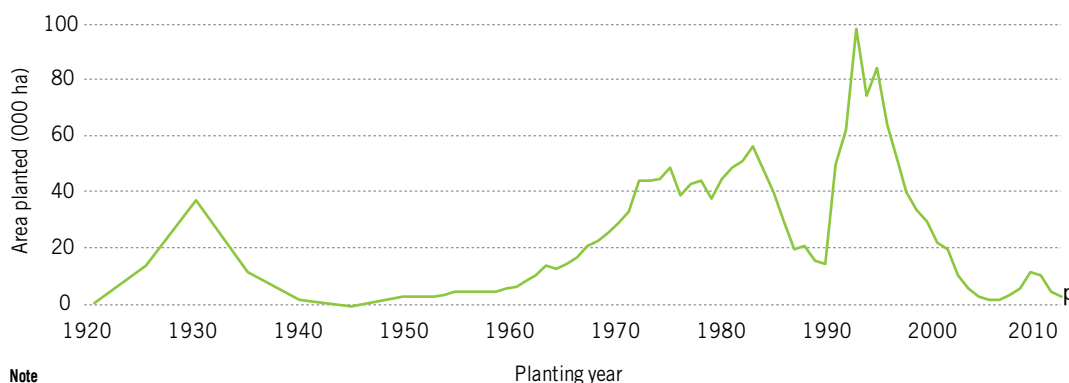
Figure 2.3 indicates that about 54 percent (847 000 hectares) of the radiata pine planted forest estate is, or is expected to be, pruned to a height of at least four metres. This is a slight fall from the previous year, reflecting a general trend within the industry away from intensively managed pruned regimes.

- The area of production thinned forest remains at similar levels to last year at approximately 15 percent of the radiata pine planted forest.
- Generally, the area of production thinned forest has declined over the past decade.
- In the Central North Island region, production thinning of the radiata pine resource has decreased from 26 percent in 2004 to 18 percent in 2014.
- Market demand for production thinnings and the current age structure of New Zealand forest resource to be thinned are likely to be factors in this decline.

**FIRST ROTATION FOREST**

Information collected in the 2014 survey indicates that 51 percent (883 000 ha) of the forest resource is first-rotation forest. Of the identified first-rotation forest, 53 percent is aged between 17 and 26 years. Owners with less than 1000 hectares of total forest area account for 24 percent of this resource.



FIGURE 2.4: NEW FOREST PLANTING 1920–2014<sup>P 1</sup>**Note**

1. This provisional estimate is compiled from a combination of information collected in a supplementary phone survey of selected large forest owners and East Coast Forestry Project planting. The final estimate of new planting in the December 2014 year will be collected in the 2015 NEFD survey.

**Symbol**

p Provisional

**PLANTING**

An estimated 3 500 hectares of new forest were established in 2013. An estimated 40 867 hectares of previously clear felled planted forest were replanted in year ended December 2013, representing a 9 percent decrease in replanting from 2012.

Based on the results of the 2014 New Planting Survey it is provisionally estimated that 3000 hectares of new forest were established during the 2014 calendar year.

**HARVESTING**

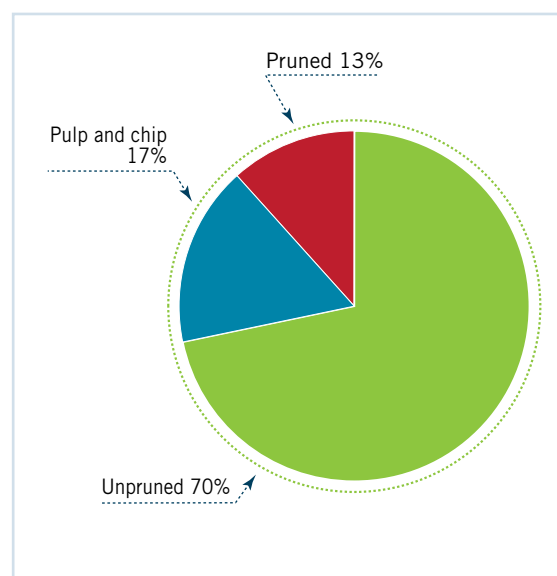
An estimated harvesting volume of 23.7 million cubic metres<sup>1</sup> for the year ended March 2014 came from clear felling 46 001 hectares of planted forest, and 0.24 million cubic metres from production thinning.

While the total reported volume of wood harvested has decreased; the average age at harvest for radiata pine has increased from 27.7 to 28.9 years in the year ended March 2014. The lower harvesting

volume may be a result of salvage logging following significant wind throw experienced in Canterbury in 2013.

Of the radiata pine harvest, the proportion of pulp and chip logs has increased slightly from 16 to 17 percent over the last year. Approximately 13 percent was sold as pruned logs with unpruned logs making up the balance of 70 percent.

FIGURE 2.5: RADIATA PINE HARVEST VOLUME BY LOG TYPE, YEAR ENDED 31 MARCH 2014



<sup>1</sup> These estimates are based on data collected in the 2014 NEFD survey and may differ from the roundwood removals estimate as published in the Annual log and roundwood removal statistics, Ministry for Primary Industries. This is due to the estimate from that source being an indirect estimate that uses conversion factors for each forestry product to estimate the total roundwood input that would be required to produce total forest product outputs.

# DATA

## COLLECTION AND ESTIMATION

# 3

In 2014, NEFD questionnaires were sent to all known forest owners and managers with at least 40 hectares of planted production forest. The questionnaire used is shown in Appendix 3. For the 2014 NEFD survey, approximately 1700 questionnaires were mailed out. A response rate of 96 percent was achieved for owners with more than 1 000 hectares and 89 percent for owners with areas between 40 and 1 000 hectares.

In addition to the data collected in the NEFD surveys, the results from the 2004 AgriQuality (nowASUREQuality) Small Forest Grower Surveys continue to be used in the 2014 NEFD dataset. Details on the methods used by AgriQuality are available in the

*Small Forest Grower Survey Report* (AgriQuality NZ, 2005).

The figures released in the *NEFD*, and in particular, new planting estimates, differ from those produced from the Agricultural Production Survey collected by Statistics New Zealand. These surveys use different survey frames and survey methodologies and have different survey objectives.

The target population for the 2014 NEFD survey was all known forest owners and managers with at least 40 hectares of planted production forest. The target population for the 2014 Agricultural Production Survey was all businesses engaged in “agricultural

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

CALENDAR YEAR OF PLANTING	TOTAL NEW PLANTING <sup>1</sup> (HA)	NEW PLANTING COLLECTED IN POSTAL SURVEYS <sup>2</sup> (HA)	NEW PLANTING ADJUSTMENTS <sup>3</sup> (HA)
1992	50 200	30 900	19 300
1993	61 600	40 400	21 200
1994	98 200	68 400	29 800
1995	73 900	56 200	17 700
1996	83 600	64 600	19 000
1997	63 700	45 600	18 100
1998	51 200	36 300	14 900
1999	40 000	23 700	16 300
2000	33 600	24 700	8 900
2001	30 100	17 100	13 000
2002	22 100	14 300	7 800
2003	19 900	11 800	8 100
2004	10 600	6 200	4 400
2005	6 000	2 900	3 100
2006	2 600	1 500	1 100
2007	2 400	2 400	-
2008	1 900	1 900	-
2009	4 300	4 300	-
2010	6 000	6 000	-
2011	12 000	12 000	-
2012	11 500	11 500	-
2013	3 500	3 500	-

#### Notes

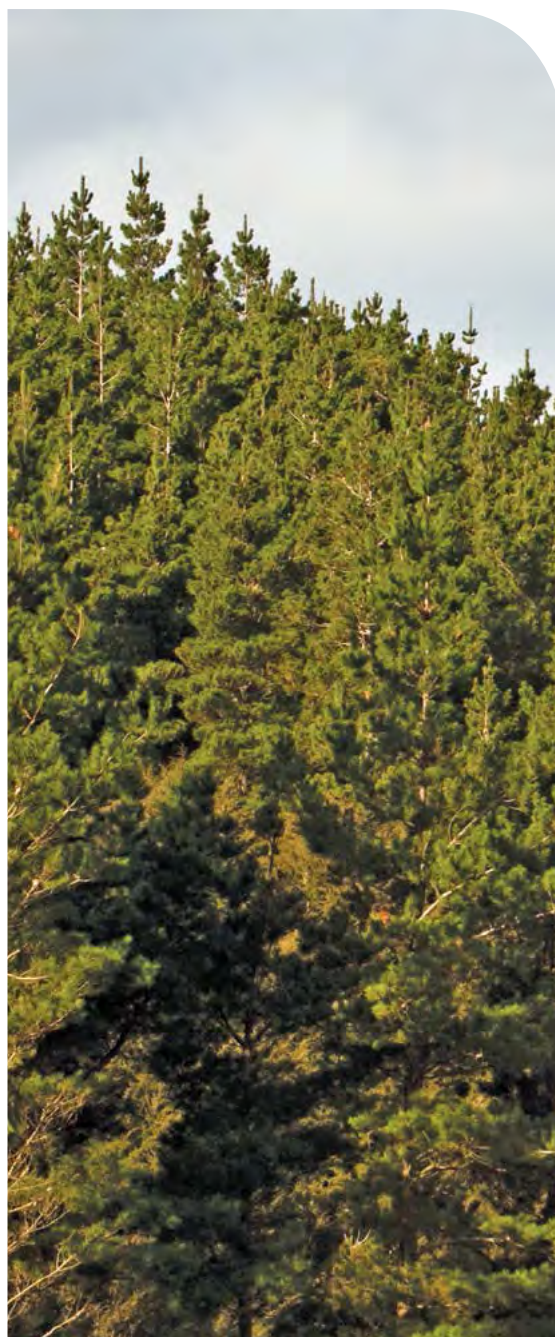
1. As estimated from the planting and nursery surveys undertaken by the Ministry for Primary Industries.
2. The area of new planting as collected in postal surveys. This does not include the area of restocking.
3. The difference between total new planting and new planting collected in postal surveys.

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 2014 Agricultural Production Survey is available on the Statistics New Zealand website<sup>1</sup>.

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

### NEW PLANTING IMPUTATION

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



<sup>1</sup> [http://www.stats.govt.nz/browse\\_for\\_stats/industry\\_sectors/agriculture-horticulture-forestry/info-releases.aspx](http://www.stats.govt.nz/browse_for_stats/industry_sectors/agriculture-horticulture-forestry/info-releases.aspx)

# DATA

## DESCRIPTION

# 4

### AREA DATA

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

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

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

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

### YIELD TABLES

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

### PLANTING AND HARVESTING DATA

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

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

### OTHER ATTRIBUTES

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

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

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

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

### NEW ZEALAND LAND USE MAP

The location of New Zealand's planted forests as identified in New Zealand Land Use Map 1990-2008 (LUM v010) is shown in Figures 8.1 and 8.2 in this report. Land Use Mapping is based on interpretation of satellite imagery and aerial photography. Further details about the New Zealand Land Use Map 1990-2008 (LUM v010) are available on the Ministry for the Environment website<sup>2</sup>.

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

<sup>2</sup> <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 75 percent of the national forest estate. There are approximately 120 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 25 percent of the national forest estate in 2013. There are approximately

1670 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.
- It is likely to have a higher degree of non-sampling error as it is more likely to contain reporting inaccuracies and responses based on forest owners' estimates.
- It is also generally not reported electronically, which increases the possibility of errors in reporting the data to MPI and in recording the data in the database.

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

Table 5.1 shows total area represented from the 2014 NEFD survey and other NEFD data sources.

TABLE 5.1: TOTAL AREA REPRESENTED BY EACH DATA SOURCE IN THE 2014 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+	922	53	32
NEFD survey 1000–9999ha	288	16	88
NEFD survey 40–999ha	257	15	1 672
<b>NEFD survey total<sup>1</sup></b>	<b>1 467</b>	<b>84</b>	<b>1 792</b>
NEFD resource <40ha	10	1	..
New planting imputation (1992–2006) <sup>2</sup>	203	12	..
2004 AgriQuality small forest growers(<40ha) <sup>3</sup>	67	4	..
<b>Total</b>	<b>1 747</b>	<b>100</b>	<b>..</b>

#### Notes

1 Data collected from 2014 NEFD survey.

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

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

#### Symbol

.. Not available.

### RELIABILITY OF DATA BELOW NATIONAL LEVEL

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

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

### NEFD SURVEYS

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

- Numeric data was limited to certain maximum and minimum values for each entry.
- Aggregated area data was checked at the territorial authority level against the 2013 NEFD area dataset to ensure variation was within acceptable limits.
- For each owner, the data provided in the 2014 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

Standing volumes in the 2014 NEFD have been calculated using the yield tables produced during the 2009 Wood Availability Forecasting project. Prior to 2014 the yield tables from the 1995 Wood Availability Forecasting project were used. Moving to the more recent yield tables provides greater accuracy and relevance to the figures produced.

The yield tables were produced principally using data provided in 2006 by owners with 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 *the 2009 Wood Availability Forecasts*.

The impact of moving from the 1995 to the 2009 yield tables is a lower standing volume per hectare. This is due to more attention being paid to realised volumes, which takes events such as wind throw and crop failure, compared to previous models.

A time series showing the results of the different yield table sets can be found in Appendix 2.

# PLANTING AND HARVESTING ESTIMATES

# 6

## NEW PLANTING AND REPLANTING ESTIMATES

The 2013 calendar year estimate of total planting is 44 367 hectares, representing a 22 percent decrease on 2012. This is made up of 3500 hectares of new planting and 40 867 hectares of replanting. The planting estimates are based on data collected from forest owners in the 2014 NEFD survey and include areas established as part of the East Coast Forestry Project.

Approximately 44 700 hectares of previously harvested forest was awaiting either replanting or a land use decision as at 1 April 2014. This is a decrease of over 7200 hectares on the previous year.

It is provisionally estimated that 3000 hectares of new planting occurred during the 2014 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.

TABLE 6.1: LAND COVER PRIOR TO NEW PLANTING

CALENDAR YEARS	IMPROVED PASTURE (%)	UNIMPROVED PASTURE (%)	OTHER WOODY VEGETATION (%)	AREA OF NEW PLANTING (HA)
1993	28	56	16	61 600
1994	49	35	16	98 200
1995	67	22	11	73 900
1996	36	50	14	83 600
1997	43	46	11	63 700
1998	44	47	9	51 200
1999	56	30	14	40 000
2000	52	31	17	33 600
2001	68	9	23	30 100
2002	31	49	20	22 100
2003	28	46	26	19 900
2004	18	46	36	10 600
2005	2	19	79	6 000
2006	2	35	63	2 600
2007	11	9	80	2 400
2008	57	2	41	1 900
2009	27	58	15	4 300
2010	64	29	6	6 000
2011	41	54	5	12 000
2012	61	32	7	11 500
2013	33	43	24	3 500

### Note

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

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

### HARVESTING DATA

The 2014 NEFD survey respondents recorded a harvest volume for the year ended 31 March 2014 of 23.7 million cubic metres. It was reported that 23.4 million cubic metres came from clear felling 46 001 hectares of planted forest, and 0.24 million cubic metres from production thinning.

The total volume of radiata pine harvested in the year ended 31 March 2014 was 22.3 million cubic metres, from clear felling 42 986 hectares of forest. The area-weighted average clear fell age of radiata pine has increased from 27.7 years to 28.9 years in the year ended 31 March 2014.

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

### WOOD AVAILABILITY FORECASTS

Wood availability forecasts for all regions and New Zealand are available on the MPI website<sup>3</sup>.

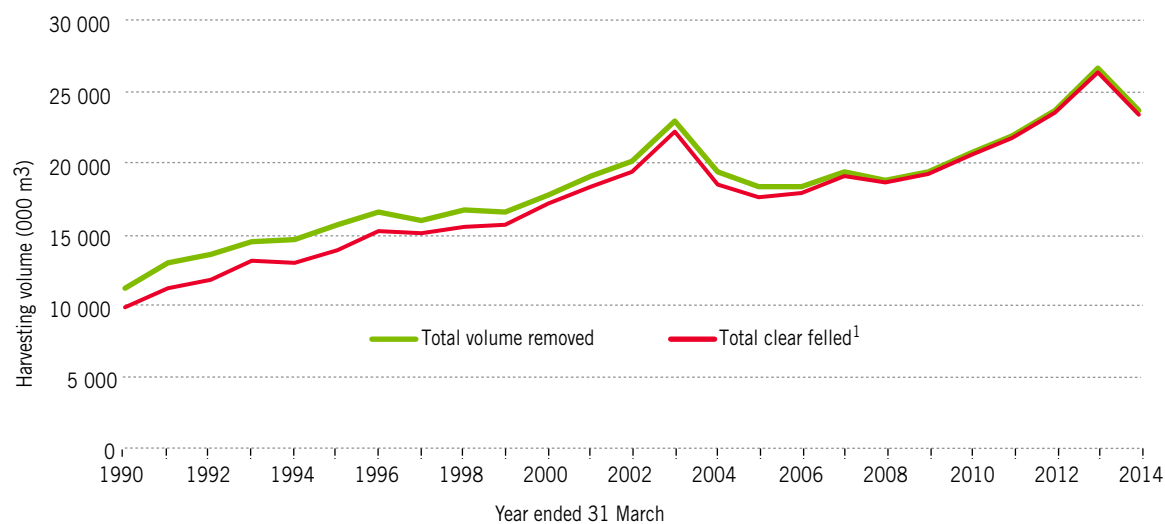
<sup>3</sup> <http://www.mpi.govt.nz/news-and-resources/publications/>

FIGURE 6.1: HISTORICAL HARVESTING AREA 1990–2014





FIGURE 6.2: HISTORICAL HARVESTING VOLUME 1990–2014

**Note**

1 'Total clear felled' is the volume of wood removed excluding thinnings.

# WOOD SUPPLY

## REGIONS AND TERRITORIAL AUTHORITIES

7

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

TABLE 7.1: WOOD SUPPLY REGIONS AND CONSTITUENT TERRITORIAL AUTHORITIES

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

TABLE 7.1: CONTINUED

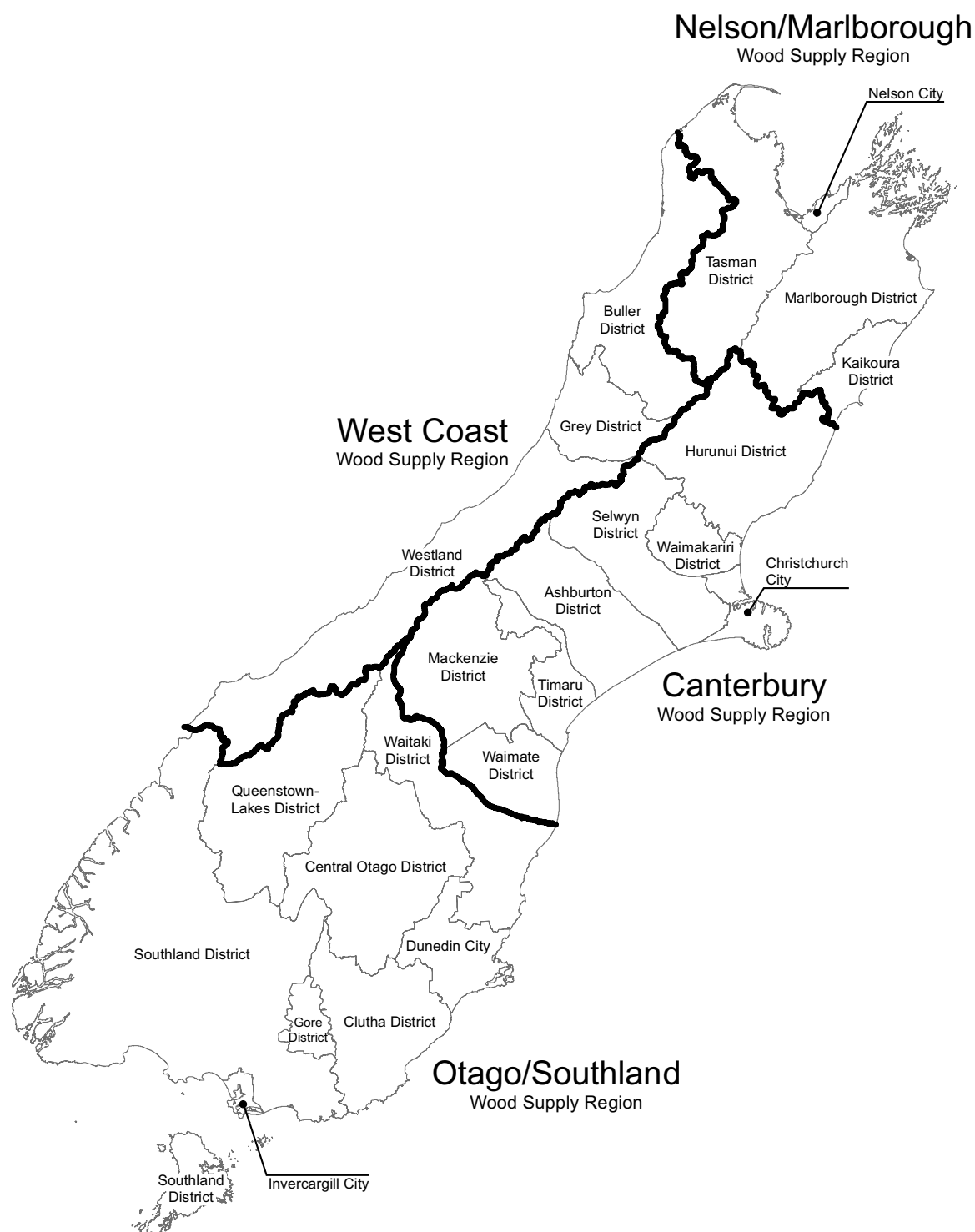
WOOD SUPPLY REGIONS	TERRITORIAL AUTHORITIES
SOUTHERN NORTH ISLAND	New Plymouth District Stratford District South Taranaki District Wanganui District Rangitikei District Manawatu District Palmerston North City Taranua District Masterton District Horowhenua District Carterton District South Wairarapa District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

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





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



# FOREST LOCATION

8

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

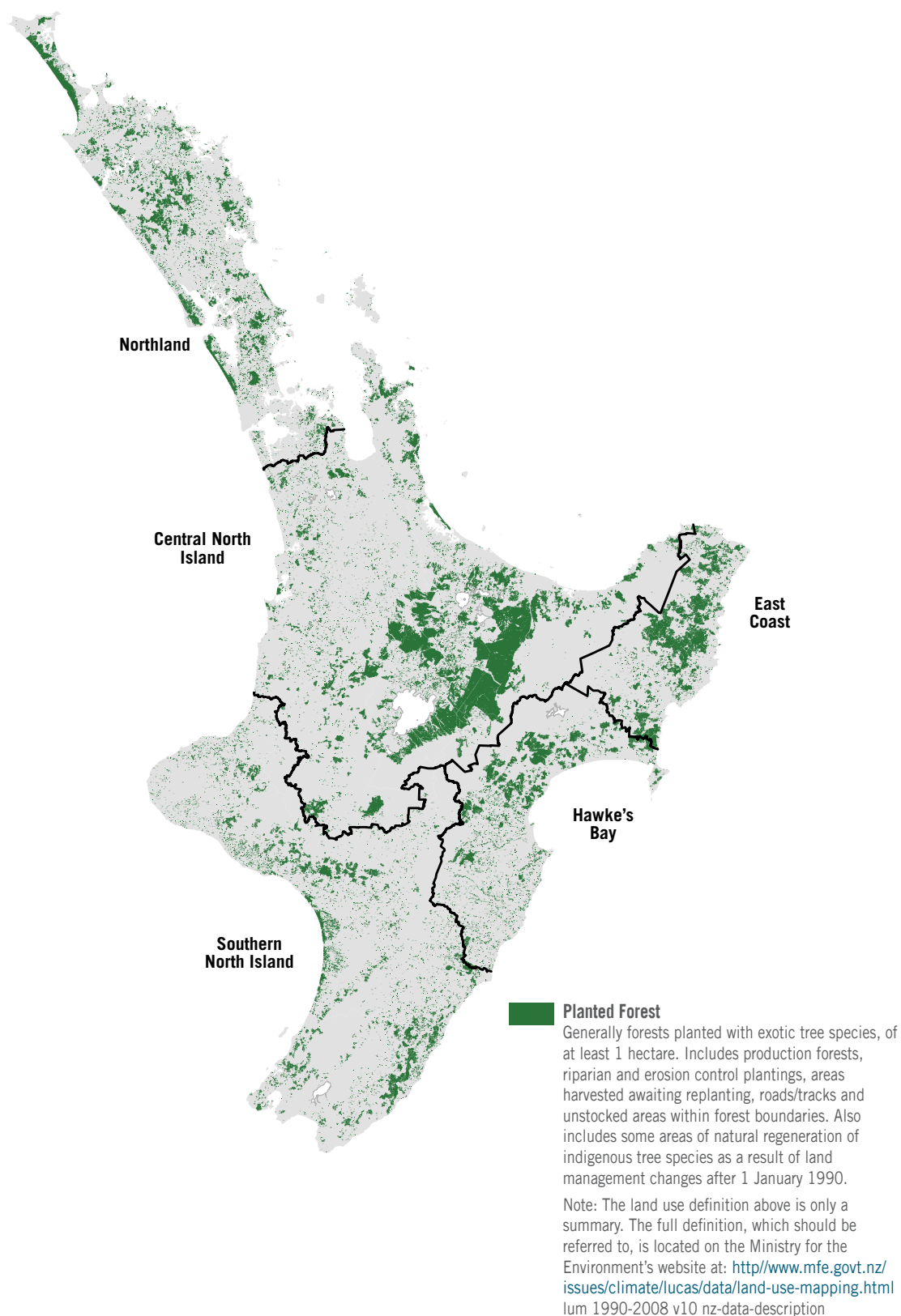
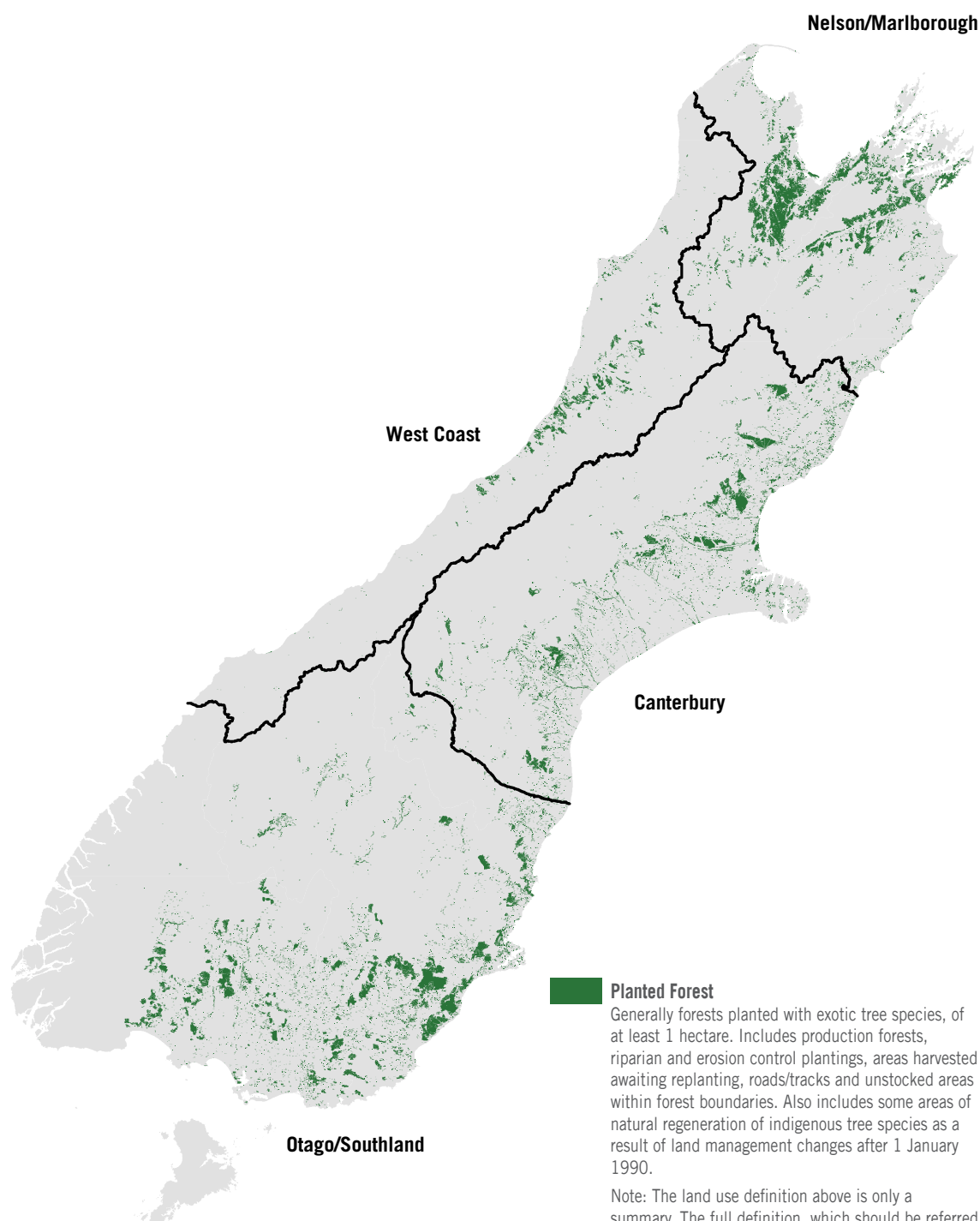


FIGURE 8.2: DISTRIBUTION OF PLANTED FORESTS BY WOOD SUPPLY REGION – SOUTH ISLAND, 2008



# TABULAR SUMMARIES

## AND GRAPHS

### PLANTING, OWNERSHIP, NUMBER OF OWNERS AND STANDING VOLUME

TABLE 9.1: NEW LAND PLANTED IN PRODUCTION FOREST IN NEW ZEALAND<sup>1</sup>

YEAR ENDED 31 DECEMBER	NEW LAND PLANTED (000 HA)	YEAR ENDED 31 DECEMBER	NEW LAND PLANTED (000 HA)	YEAR ENDED 31 DECEMBER	NEW LAND PLANTED (000 HA)
1920	1	1968	21	1992	50
1925	14	1969	23	1993	62
1930	37	1970	26	1994	98
1935	12	1971	29	1995	74
1940	2	1972	33	1996	84
1945	0	1973	44	1997	64
1950	3	1974	44	1998	51
1951	3	1975	45	1999	40
1952	3	1976	49	2000	34
1953	3	1977	39	2001	30
1954	4	1978	43	2002	22
1955	5	1979	44	2003	20
1956	5	1980	38	2004	11
1957	5	1981	45	2005	6
1958	5	1982	49	2006	3
1959	5	1983	51	2007	2
1960	6	1984	56	2008	2
1961	7	1985	48	2009	4
1962	9	1986	40	2010	6
1963	11	1987	30	2011	12
1964	14	1988	20	2012	12
1965	13	1989	21	2013 <sup>2</sup>	4 <sup>f</sup>
1966	15	1990	16	2014 <sup>3</sup>	3 <sup>p</sup>
1967	17	1991	15		

#### 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 figure is compiled from new planting reported in the 2014 NEFD survey and East Coast Forestry Project. The new planting estimate released in the *National Exotic Forest Description* may differ from those produced in the Agricultural Production Survey by Statistics New Zealand. These surveys use different survey frames and designs.
3. This provisional estimate is compiled from a combination of information collected in a supplementary phone survey of selected large forest owners and managers, known afforesters, and the East Coast Forestry Project.

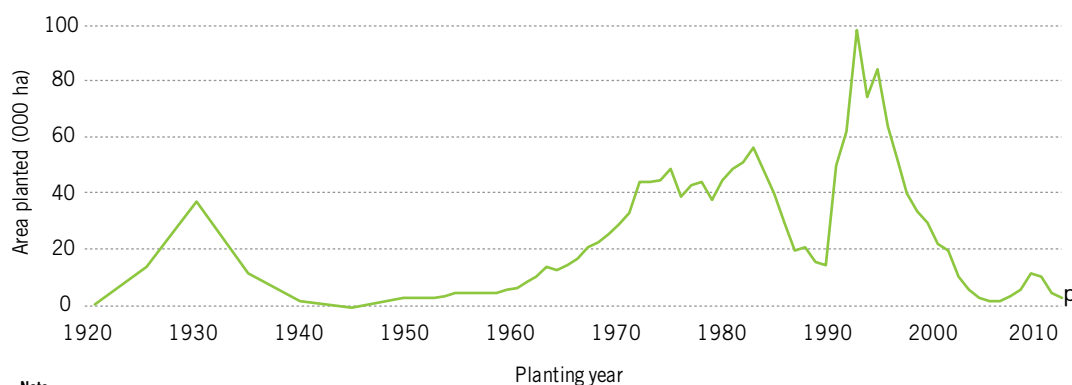
#### Symbols

- f Finalised.  
p Provisional.

#### 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, the Ministry of Agriculture and Forestry, and the Ministry for Primary Industries.

FIGURE 9.1: NEW LAND PLANTED IN PRODUCTION FOREST IN NEW ZEALAND<sup>1</sup>



#### Note

1. This provisional estimate is compiled from a combination of information collected in a supplementary phone survey of selected large forest owners, known afforesters, and East Coast Forestry Project planting. The final estimate of new planting in the December 2014 year will be collected in the 2015 NEFD survey.

#### Symbol

- p Provisional.



TABLE 9.2: PLANTED PRODUCTION FOREST AREA IN NEW ZEALAND<sup>1</sup>

YEAR ENDED 31 MARCH	PLANTED FOREST AREA			YEAR ENDED 31 MARCH	PLANTED FOREST AREA		
	STATE <sup>2</sup> (000 HA)	PRIVATE <sup>3</sup> (000 HA)	TOTAL (000 HA)		STATE <sup>2</sup> (000 HA)	PRIVATE <sup>3</sup> (000 HA)	TOTAL (000 HA)
1921	16	61	77	1980	467	379	846
1926	32	66	98	1981	484	404	888
1931	124	123	247	1982	505	434	939
1936	170	147	317	1983	526	467	993
1941	179	150	329	1984	546	499	1 045
1946	183	149	332	1985	566	529	1 095
1951	187	151	338	1986	583	548	1 131
1952	189	151	340	1987	598	556	1 154
1953	190	151	341	1988	588	626	1 214
1954	191	151	342	1989	607	633	1 240
1955	192	152	344	1990	607	654	1 261
1956	192	154	346	1991	361	928	1 289
1957	193	155	348	1992	356	952	1 308
1958	194	156	350	1993	262	1 066	1 328
1959	195	157	352	1994	267	1 121	1 388
1960	195	157	352	1995	334	1 144	1 478
1961	199	159	358	1996	330	1 212	1 542
1962	213	149	362	1997	169	1 461	1 630
1963	220	152	372	1998	169	1 510	1 679
1964	228	156	384	1999	161	1 570	1 731
1965	235	160	395	2000	151	1 618	1 769
1966	241	163	404	2001	151	1 648	1 799
1967	247	167	414	2002	148	1 666	1 814
1968	257	172	429	2003	146	1 681	1 827
1969	270	177	447	2004	143	1 679	1 822
1970	283	182	465	2005	135	1 676	1 811
1971	294	189	483	2006	125	1 675	1 800
1972	306	202	508	2007	125	1 665	1 790
1973	323	215	538	2008	127	1 634	1 761
1974	343	234	577	2009	128	1 623	1 751
1975	362	254	616	2010	123	1 615	1 738
1976	385	272	657	2011	119	1 600	1 719
1977	406	299	705	2012	113	1 607	1 720
1978	425	324	749	2013	111	1 618	1 729
1979	449	350	799	2014	95	1 651	1 746

**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 West Coast and Māori leased forests managed by the Ministry for Primary Industries. Since 1990 much of the state forest has been sold to the private sector.
3. Private afforestation figures are based on incomplete historical data, and considerable estimation has taken place.

**Sources**

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

FIGURE 9.2: PLANTED PRODUCTION FOREST AREA IN NEW ZEALAND

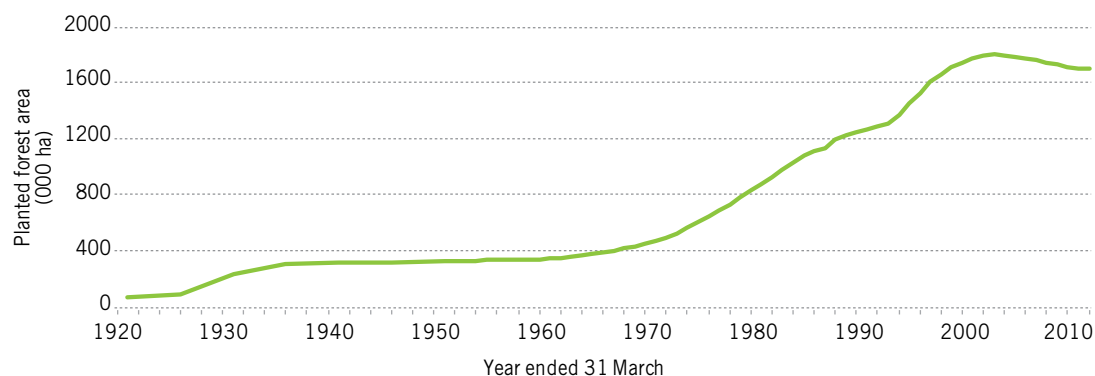


TABLE 9.3: FOREST OWNERSHIP, AS AT 1 APRIL 2014<sup>1</sup>

OWNERSHIP CATEGORY <sup>2</sup>	ESTIMATED TOTAL AREA (HA) <sup>3</sup>	PERCENT OF ESTIMATED TOTAL
Registered public company <sup>4</sup>	130	0.0
Privately owned <sup>4, 5</sup>	1 651 063	94.5
State-owned enterprise	10 912	0.6
Local government	47 402	2.7
Central government	37 066	2.1
<b>New Zealand total</b>	<b>1 746 573</b>	<b>100</b>

**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 2011/2012*, page 9 (see the New Zealand Forest Owners Association website for more information).
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 Māori lease hold land. These forests are managed by the Ministry for Primary Industries.

FIGURE 9.3: FOREST OWNERSHIP

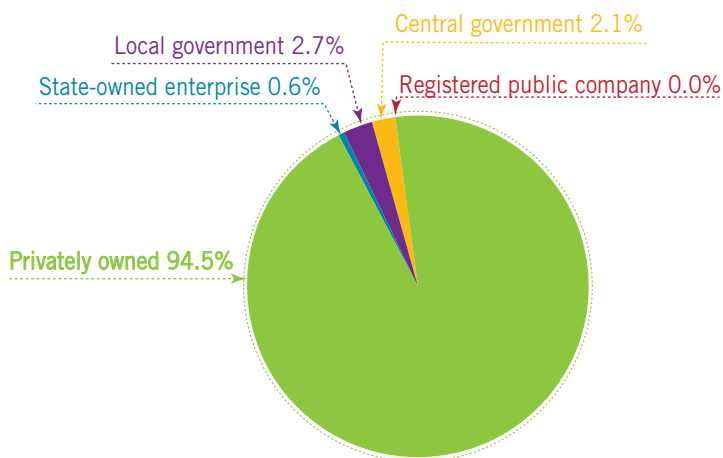


TABLE 9.4: FOREST AREA<sup>1</sup> BY ANNUAL AGE CLASS, AS AT 1 APRIL 2014

AGE	AREA (HA)	AGE	AREA (HA)	AGE	AREA (HA)
1	44 314	29	34 071	57	77
2	50 738	30	25 600	58	49
3	50 870	31	21 286	59	66
4	40 272	32	15 242	60	70
5	36 080	33	12 000	61	104
6	34 920	34	9 561	62	133
7	35 807	35	6 830	63	28
8	33 112	36	7 817	64	371
9	38 538	37	4 322	65	87
10	46 674	38	3 122	66	38
11	57 457	39	3 287	67	57
12	60 642	40	2 341	68	19
13	66 357	41	1 502	69	37
14	66 928	42	1 410	70	65
15	69 295	43	1 003	71	13
16	78 465	44	1 468	72	17
17	91 948	45	1 050	73	19
18	107 087	46	840	74	160
19	97 493	47	541	75	38
20	117 238	48	620	76	56
21	82 062	49	709	77	6
22	66 702	50	836	78	21
23	36 722	51	317	79	9
24	35 893	52	313	80+	590
25	38 725	53	214	<b>New Zealand total</b>	<b>1 746 573</b>
26	31 465	54	576		
27	33 834	55	192		
28	37 579	56	156		

**Note**

1. Net stocked planted production forest area.

FIGURE 9.4: FOREST AREA BY ANNUAL AGE CLASS<sup>1</sup>**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 CLASS<sup>1</sup>, AS AT APRIL 2014

WOOD SUPPLY REGION	NATIONAL SIZE CLASS					
	<40 HA	40–99 HA	100–499 HA	500–999 HA	1000–9999 HA	10 000+ HA
Northland	..	123	79	17	12	3
Central North Island	..	110	92	11	16	9
East Coast	..	49	49	10	13	3
Hawke's Bay	..	54	44	7	6	4
Southern North Island	..	207	166	14	14	2
Nelson and Marlborough	..	171	114	9	10	2
West Coast	..	7	4	1	1	1
Canterbury	..	81	75	6	8	1
Otago and Southland	..	143	82	7	12	5

**Notes**

1. This table shows the size class of the forest owner at a national level and the regions where the owner has forests located. This does not show the size of the forest at regional level.

2. The New Zealand totals do not equal the sum of the wood supply regions because some owners have forests in more than one region. This is particularly the case for large owners in the 1000–9999 hectare and 10 000+ hectare size classes.

**Symbol**

.. Not available.

FIGURE 9.5: NUMBER OF FOREST OWNERS BY NATIONAL SIZE CLASS

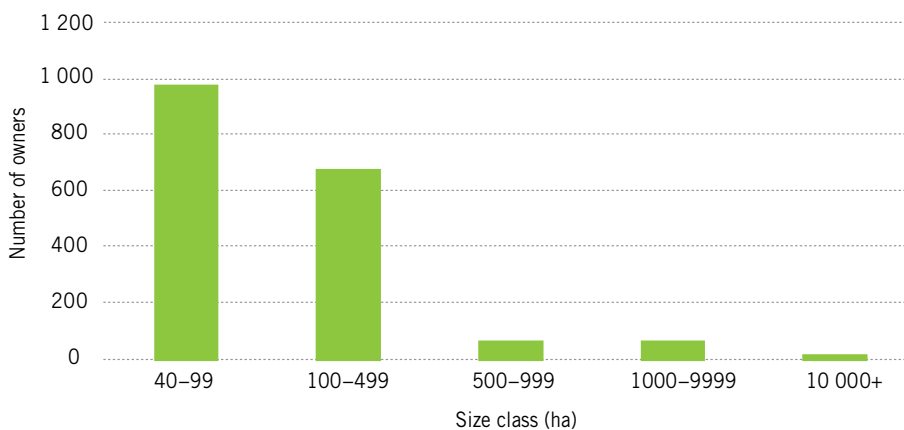




TABLE 9.6: FOREST AREA BY FOREST OWNER NATIONAL SIZE CLASS, AS AT 1 APRIL 2014

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	35 205	7 656	14 801	11 605	43 878	78 367	191 512
Central North Island	57 404	6 717	19 152	8 577	51 611	443 643	587 104
East Coast	16 710	2 973	12 137	6 843	50 723	67 046	156 432
Hawke's Bay	21 804	3 332	9 674	5 228	15 804	77 482	133 324
Southern North Island	44 961	12 854	32 889	9 183	37 255	25 637	162 779
Nelson and Marlborough	24 680	10 581	20 720	6 486	23 892	82 062	168 421
West Coast	2 771	443	574	617	4 488	22 882	31 775
Canterbury	32 674	5 104	13 050	4 071	28 576	24 896	108 371
Otago and Southland	43 106	9 133	17 413	5 363	32 022	99 818	206 855
<b>New Zealand total</b>	<b>279 315</b>	<b>58 793</b>	<b>140 410</b>	<b>57 973</b>	<b>288 249</b>	<b>921 833</b>	<b>1 746 573</b>

FIGURE 9.6: FOREST AREA BY NATIONAL SIZE CLASS



TABLE 9.7: FOREST AREA<sup>1</sup> COLLECTED BY POSTAL SURVEY AND ADJUSTMENTS FOR NEW PLANTING, AS AT 1 APRIL 2014

TERRITORIAL AUTHORITY	COLLECTED BY POSTAL SURVEYS (HA) <sup>2</sup>	IMPUTED NEW PLANTING 1992–2006 (HA) <sup>3</sup>	ESTIMATED TOTAL AREA (HA)
<b>NORTHLAND WOOD SUPPLY REGION</b>			
Far North District	77 779	8 087	85 866
Whangarei District	26 005	3 704	29 709
Kaipara District	31 331	4 829	36 160
Auckland Council	33 532	6 245	39 777
<b>Region total</b>	<b>168 647</b>	<b>22 865</b>	<b>191 512</b>
<b>CENTRAL NORTH ISLAND WOOD SUPPLY REGION</b>			
Thames-Coromandel District	14 616	1 376	15 992
Hauraki District	2 601	907	3 508
Waikato District	15 884	2 294	18 178
Matamata-Piako District	912	354	1 266
Hamilton City	1	0	1
Waipa District	1 658	1 057	2 715
Otorohanga District	2 450	2 327	4 777
South Waikato District	69 488	1 579	71 067
Waitomo District	18 400	6 759	25 159
Taupo District	165 841	6 713	172 554
Tauranga District	71	39	110
Ruapehu District	41 397	8 359	49 756
Western Bay of Plenty District	20 191	3 089	23 280
Rotorua District	48 724	5 272	53 996
Kawerau District	31	3	34
Whakatane District	124 715	4 283	128 998
Opotiki District	13 465	2 248	15 713
<b>Region total</b>	<b>540 445</b>	<b>46 659</b>	<b>587 104</b>
<b>EAST COAST WOOD SUPPLY REGION</b>			
Gisborne District	141 914	14 518	156 432
<b>Region total</b>	<b>141 914</b>	<b>14 518</b>	<b>156 432</b>
<b>HAWKE'S BAY WOOD SUPPLY REGION</b>			
Wairoa District	49 661	5 561	55 222
Hastings District	56 094	5 930	62 024
Napier City	78	0	78
Central Hawke's Bay District	11 624	4 376	16 000
<b>Region total</b>	<b>117 457</b>	<b>15 867</b>	<b>133 324</b>
<b>SOUTHERN NORTH ISLAND WOOD SUPPLY REGION</b>			
New Plymouth District	3 163	760	3 923
Stratford District	2 708	1 165	3 873
South Taranaki District	7 865	2 146	10 011
Wanganui District	25 241	3 584	28 825
Rangitikei District	18 044	3 593	21 637
Manawatu District	4 871	2 033	6 904
Palmerston North City	2 075	297	2 372
Horowhenua District	5 278	1 204	6 482
Tararua District	13 076	2 926	16 002
Kapiti Coast District	2 849	755	3 604
Upper Hutt City	4 411	646	5 057
Porirua City	1 291	54	1 345
Wellington City	536	38	574
Lower Hutt City	272	27	299
Masterton District	29 121	3 676	32 797
Carterton District	7 846	2 686	10 532
South Wairarapa District	6 350	2 192	8 542
<b>Region total</b>	<b>134 997</b>	<b>27 782</b>	<b>162 779</b>
<b>North Island total</b>	<b>1 103 460</b>	<b>127 691</b>	<b>1 231 151</b>

TABLE 9.7: CONTINUED...

TERRITORIAL AUTHORITY	COLLECTED BY POSTAL SURVEYS (HA) <sup>2</sup>	IMPUTED NEW PLANTING 1992–2006 (HA) <sup>3</sup>	ESTIMATED TOTAL AREA (HA)
<b>NELSON AND MARLBOROUGH WOOD SUPPLY REGION</b>			
Tasman District	80 057	5 706	85 763
Nelson City	8 598	532	9 130
Marlborough District	62 855	9 320	72 175
Kaikoura District	1 145	208	1 353
<b>Region total</b>	<b>152 655</b>	<b>15 766</b>	<b>168 421</b>
<b>WEST COAST WOOD SUPPLY REGION</b>			
Buller District	3 504	323	3 827
Grey District	13 341	296	13 637
Westland District	13 243	1 068	14 311
<b>Region total</b>	<b>30 088</b>	<b>1 687</b>	<b>31 775</b>
<b>CANTERBURY WOOD SUPPLY REGION</b>			
Hurunui District	36 779	6 312	43 091
Waimakariri District	9 785	3 118	12 903
Selwyn District	8 042	2 252	10 294
Christchurch City	6 604	3 638	10 242
Ashburton District	2 597	922	3 519
Mackenzie District	3 698	1 158	4 856
Timaru District	9 365	2 521	11 886
Waimate District	7 584	3 996	11 580
<b>Region total</b>	<b>84 454</b>	<b>23 917</b>	<b>108 371</b>
<b>OTAGO AND SOUTHLAND WOOD SUPPLY REGION</b>			
Waitaki District	15 071	3 884	18 955
Queenstown-Lakes District	608	130	738
Central Otago District	5 277	1 771	7 048
Dunedin City	13 115	1 374	14 489
Clutha District	71 394	11 741	83 135
Southland District	64 686	12 870	77 556
Gore District	2 436	1 810	4 246
Invercargill City	589	99	688
<b>Region total</b>	<b>173 176</b>	<b>33 679</b>	<b>206 855</b>
<b>South Island total</b>	<b>440 373</b>	<b>75 049</b>	<b>515 422</b>
<b>New Zealand total</b>	<b>1 543 833</b>	<b>202 740</b>	<b>1 746 573</b>

**Notes**

1. Net stocked planted production forest area.
2. Comprises the combined results from the 2014 NEFD survey and a small forest grower survey conducted by AgriQuality.
3. Adjustments made to the area of new forest planted between 1992 and 2006. New planting imputation is discussed on page 7.

FIGURE 9.7: TOTAL FOREST AREA BY WOOD SUPPLY REGION

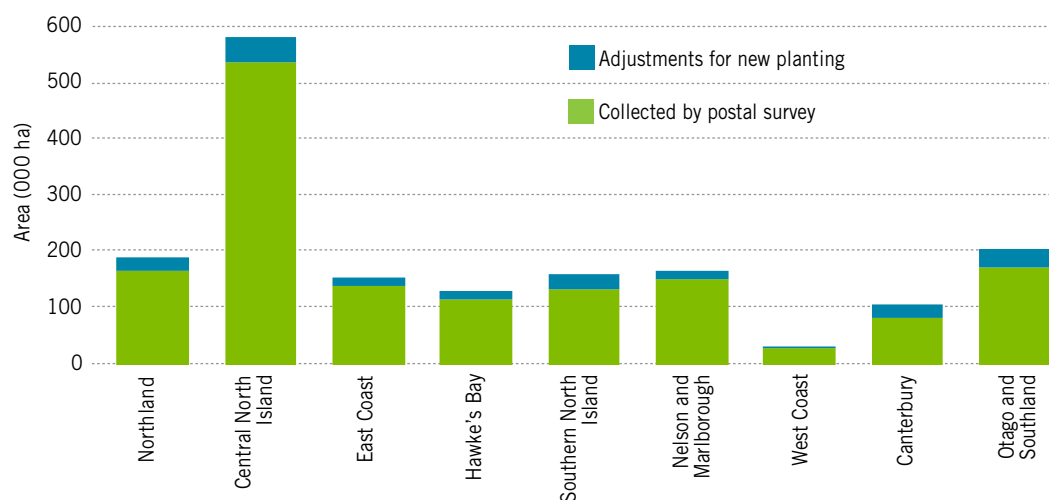


TABLE 9.8: AREA<sup>1</sup>, STANDING VOLUME AND AREA-WEIGHTED AVERAGE AGE BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

TERRITORIAL AUTHORITY	AREA (HA)	STANDING VOLUME (000 M <sup>3</sup> )	AREA-WEIGHTED AVERAGE AGE (YEARS)
NORTHLAND WOOD SUPPLY REGION			
Far North District	85 866	26 671	17.57
Whangarei District	29 709	9 545	17.29
Kaipara District	36 160	12 398	17.86
Auckland Council	39 777	11 101	15.92
<b>Region total</b>	<b>191 512</b>	<b>59 715</b>	<b>17.24</b>
CENTRAL NORTH ISLAND WOOD SUPPLY REGION			
Thames-Coromandel District	15 992	4 486	14.58
Hauraki District	3 508	1 392	18.09
Waikato District	18 178	6 562	17.12
Matamata-Piako District	1 266	465	17.50
Hamilton City	1	1	32.00
Waipa District	2 715	988	16.36
Otorohanga District	4 777	1 713	17.33
South Waikato District	71 067	24 113	15.90
Waitomo District	25 159	7 448	15.19
Taupo District	172 554	52 733	15.91
Tauranga District	110	48	19.25
Ruapehu District	49 756	17 496	16.56
Western Bay of Plenty District	23 280	8 616	17.31
Rotorua District	53 996	15 146	15.28
Kawerau District	34	15	15.65
Whakatane District	128 998	39 393	15.62
Opotiki District	15 713	6 896	20.15
<b>Region total</b>	<b>587 104</b>	<b>187 510</b>	<b>16.01</b>
EAST COAST WOOD SUPPLY REGION			
Gisborne District	156 432	51 841	17.53
<b>Region total</b>	<b>156 432</b>	<b>51 841</b>	<b>17.53</b>
HAWKE'S BAY WOOD SUPPLY REGION			
Wairoa District	55 222	15 105	15.58
Hastings District	62 024	17 564	15.66
Napier City	78	29	20.27
Central Hawke's Bay District	16 000	5 622	18.25
<b>Region total</b>	<b>133 324</b>	<b>38 320</b>	<b>15.94</b>
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION			
New Plymouth District	3 923	1 231	18.69
Stratford District	3 873	1 315	19.40
South Taranaki District	10 011	3 539	19.38
Wanganui District	28 825	8 441	17.14
Rangitikei District	21 637	6 348	17.85
Manawatu District	6 904	2 393	19.26
Palmerston North City	2 372	736	16.91
Horowhenua District	6 482	2 053	18.68
Tararua District	16 002	4 812	17.65
Kapiti Coast District	3 604	1 388	20.86
Upper Hutt City	5 057	1 508	17.64
Porirua City	1 345	613	23.47
Wellington City	574	192	18.52
Lower Hutt City	299	165	27.65
Masterton District	32 797	10 800	18.88
Carterton District	10 532	2 993	17.14
South Wairarapa District	8 542	2 585	17.85
<b>Region total</b>	<b>162 779</b>	<b>51 113</b>	<b>18.22</b>
<b>North Island total</b>	<b>1 231 151</b>	<b>388 498</b>	<b>16.68</b>

TABLE 9.8: CONTINUED...

TERRITORIAL AUTHORITY	AREA (HA)	STANDING VOLUME (000 M <sup>3</sup> )	AREA-WEIGHTED AVERAGE AGE (YEARS)
<b>NELSON AND MARLBOROUGH WOOD SUPPLY REGION</b>			
Tasman District	85 763	18 500	15.69
Nelson City	9 130	1 799	14.02
Marlborough District	72 175	19 449	17.63
Kaikoura District	1 353	367	18.77
<b>Region total</b>	<b>168 421</b>	<b>40 115</b>	<b>16.46</b>
<b>WEST COAST WOOD SUPPLY REGION</b>			
Buller District	3 827	714	15.62
Grey District	13 637	3 090	17.96
Westland District	14 311	2 166	15.87
<b>Region total</b>	<b>31 775</b>	<b>5 970</b>	<b>16.74</b>
<b>CANTERBURY WOOD SUPPLY REGION</b>			
Hurunui District	43 091	8 357	17.13
Waimakariri District	12 903	2 893	18.59
Selwyn District	10 294	2 499	20.60
Christchurch City	10 242	2 068	17.62
Ashburton District	3 519	719	20.43
Mackenzie District	4 856	1 016	21.10
Timaru District	11 886	2 218	18.74
Waimate District	11 580	2 070	18.14
<b>Region total</b>	<b>108 371</b>	<b>21 840</b>	<b>18.25</b>
<b>OTAGO AND SOUTHLAND WOOD SUPPLY REGION</b>			
Waitaki District	18 955	3 775	17.41
Queenstown-Lakes District	738	249	26.79
Central Otago District	7 048	1 343	21.54
Dunedin City	14 489	3 505	17.33
Clutha District	83 135	14 962	16.22
Southland District	77 556	12 318	16.08
Gore District	4 246	860	18.21
Invercargill City	688	287	24.78
<b>Region total</b>	<b>206 855</b>	<b>37 300</b>	<b>16.64</b>
<b>South Island total</b>	<b>515 422</b>	<b>105 225</b>	<b>16.93</b>
<b>New Zealand total</b>	<b>1 746 573</b>	<b>493 723</b>	<b>16.75</b>

**Note**

1. Net stocked planted production forest area.

FIGURE 9.8: STANDING VOLUME BY WOOD SUPPLY REGION

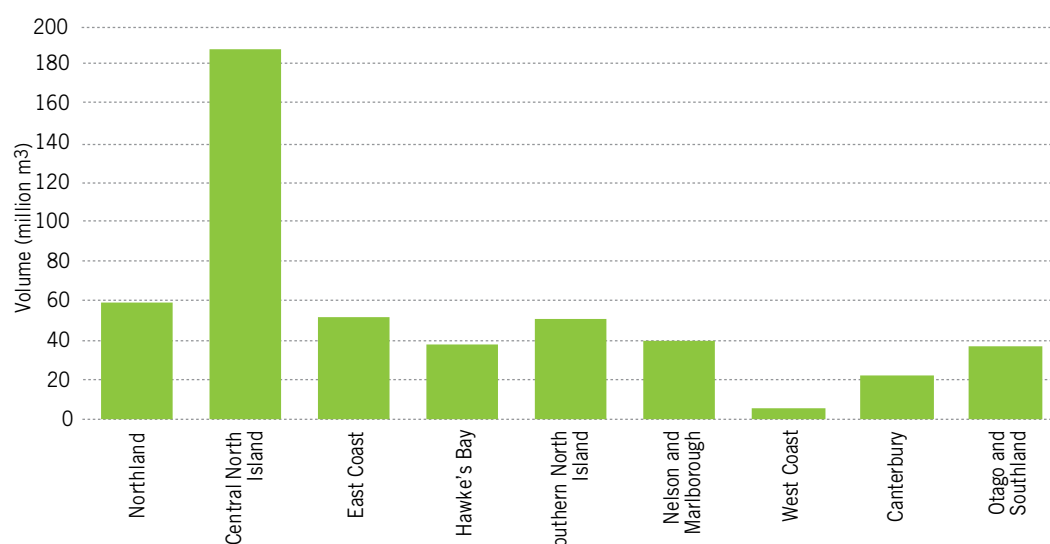




TABLE 9.9: FOREST AREA<sup>1</sup> BY AGE CLASS AND TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

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	14 996	10 073	10 123	19 212	6 873	16 174	6 347	1 611	390	28	39	85 866
Whangarei District	4 970	2 175	3 986	8 333	3 275	5 592	809	391	143	18	17	29 709
Kaipara District	4 920	2 112	4 396	10 960	5 631	7 178	624	157	150	8	24	36 160
Auckland Council	3 895	4 602	9 910	11 272	5 358	2 128	1 243	1 023	304	18	24	39 777
Region total	28 781	18 962	28 415	49 777	21 137	31 072	9 023	3 182	987	72	104	191 512
CENTRAL NORTH ISLAND WOOD SUPPLY REGION												
Thames-Coromandel District	3 371	3 408	2 389	2 649	1 974	832	932	316	32	26	63	15 992
Hauraki District	312	C	469	1 290	944	279	C	15	1	0	6	3 508
Waikato District	1 835	683	5 329	5 340	3 522	874	289	96	48	26	136	18 178
Matamata-Piako District	126	249	151	241	278	86	105	23	4	0	3	1 266
Hamilton City	0	0	0	0	0	0	1	0	0	0	0	1
Waipa District	254	102	783	1 068	388	34	72	7	3	0	4	2 715
Otorohanga District	160	317	1 561	1 498	890	227	40	25	57	0	2	4 777
South Waikato District	7 715	9 893	15 770	15 630	16 712	4 684	461	60	29	4	109	71 067
Waitomo District	1 798	4 601	5 933	9 673	1 942	748	416	41	7	0	0	25 159
Taupo District	29 158	26 454	34 489	27 771	22 255	20 222	9 580	1 578	949	38	60	172 554
Tauranga District	0	0	14	73	1	16	6	0	0	0	0	110
Ruapehu District	8 818	2 043	4 650	21 266	5 185	5 295	1 996	388	55	1	59	49 756
Western Bay of Plenty District	2 237	2 542	3 900	6 043	5 600	2 319	464	42	35	76	22	23 280
Rotorua District	7 167	9 249	13 391	11 122	8 584	2 272	843	729	423	29	187	53 996
Kawerau District	0	0	20	14	0	0	0	0	0	0	0	34
Whakatane District	19 544	C	22 095	38 432	21 433	8 708	C	1 004	371	82	27	128 998
Opotiki District	2 976	962	1 580	1 069	1 143	5 792	1 990	201	0	0	0	15 713
Region total	85 471	75 404	112 524	143 179	90 851	52 388	19 788	4 525	2 014	282	678	587 104
EAST COAST WOOD SUPPLY REGION												
Gisborne District	21 795	9 125	26 029	44 265	31 397	13 190	6 931	2 257	1 140	248	55	156 432
Region total	21 795	9 125	26 029	44 265	31 397	13 190	6 931	2 257	1 140	248	55	156 432
HAWKE'S BAY WOOD SUPPLY REGION												
Wairoa District	7 360	7 597	9 469	20 430	4 885	3 618	1 352	338	C	C	C	55 222
Hastings District	7 954	7 867	13 090	17 124	10 508	3 833	1 211	234	129	38	36	62 024
Napier City	0	0	0	54	12	12	0	0	0	0	0	78
Central Hawke's Bay District	1 221	558	1 762	8 205	2 458	864	520	212	C	C	C	16 000
Region total	16 535	16 022	24 321	45 813	17 863	8 327	3 083	784	311	114	151	133 324
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION												
New Plymouth District	93	187	902	1 444	648	491	70	77	9	0	2	3 923
Stratford District	12	78	410	2 270	920	112	58	10	0	0	3	3 873
South Taranaki District	352	164	1 438	4 158	2 933	519	335	69	33	1	9	10 011
Wanganui District	2 661	2 639	4 635	10 828	4 880	2 679	242	119	111	14	17	28 825
Rangitikei District	1 277	1 060	4 065	10 245	3 163	779	359	275	265	132	17	21 637
Manawatu District	665	99	1 160	2 126	1 707	418	508	170	34	2	15	6 904
Palmerston North City	467	424	151	381	506	69	153	203	18	0	0	2 372
Horowhenua District	374	770	1 005	1 264	2 257	403	241	103	22	38	5	6 482
Tararua District	1 964	890	2 198	6 623	2 260	676	977	316	78	11	9	16 002
Kapiti Coast District	66	83	776	949	738	753	143	91	5	0	0	3 604
Upper Hutt City	C	568	924	1 024	533	707	310	132	47	20	C	5 057
Porirua City	13	0	112	145	703	235	65	55	17	0	0	1 345
Wellington City	C	0	36	263	178	27	2	0	0	0	C	574
Lower Hutt City	0	0	10	102	2	19	133	33	0	0	0	299
Masterton District	2 406	2 238	5 250	9 523	7 041	3 873	1 580	410	387	79	10	32 797
Carterton District	1 304	522	2 585	3 179	1 310	948	330	209	139	4	2	10 532
South Wairarapa District	784	383	1 654	2 658	1 947	635	228	200	46	6	1	8 542
Region total	13 268	10 105	27 311	57 182	31 726	13 343	5 734	2 472	1 211	307	120	162 779
North Island total	141 650	144 162	222 935	333 975	156 568	144 840	44 634	11 404	6 200	1 369	1 097	1 208 834

TABLE 9.9: CONTINUED...

TERRITORIAL AUTHORITY	AGE CLASS (YEARS)											
	1-5 YEARS (HA)	6-10 YEARS (HA)	11-15 YEARS (HA)	16-20 YEARS (HA)	21-25 YEARS (HA)	26-30 YEARS (HA)	31-35 YEARS (HA)	36-40 YEARS (HA)	41-50 YEARS (HA)	51-60 YEARS (HA)	61-80 YEARS (HA)	TOTAL (HA)
NELSON & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	13 451	14 182	14 818	19 198	13 055	6 043	2 699	1 673	471	90	83	85 763
Nelson City	2 037	1 666	1 509	1 929	1 148	277	315	152	66	17	14	9 130
Marlborough District	8 604	7 382	8 876	23 124	9 984	9 758	3 108	939	342	44	14	72 175
Kaikoura District	121	17	222	721	106	35	25	50	52	4	0	1 353
Region total	24 213	23 247	25 425	44 972	24 293	16 113	6 147	2 814	931	155	111	168 421
WEST COAST WOOD SUPPLY REGION												
Buller District	1 117	239	374	1 037	360	429	134	86	23	4	24	3 827
Grey District	1 184	3 135	2 744	1 935	938	1 330	1 535	236	486	112	2	13 637
Westland District	1 141	3 482	2 359	4 364	1 033	1 043	352	404	124	8	1	14 311
Region total	3 442	6 856	5 477	7 336	2 331	2 802	2 021	726	633	124	27	31 775
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	3 614	5 276	9 723	12 897	5 041	4 219	1 304	483	369	55	110	43 091
Waimakariri District	404	732	2 222	4 619	3 691	767	178	144	73	71	2	12 903
Selwyn District	851	376	1 237	2 836	2 445	1 593	476	223	149	62	46	10 294
Christchurch City	382	241	1 410	4 414	2 191	775	511	231	36	4	47	10 242
Ashburton District	343	347	590	1 140	323	371	123	121	90	43	28	3 519
Mackenzie District	326	270	836	1 441	950	260	249	136	278	76	34	4 856
Timaru District	548	755	3 835	2 638	1 726	1 367	348	426	154	48	41	11 886
Waimate District	955	727	1 011	6 032	916	977	818	35	38	53	18	11 580
Region total	7 423	8 724	20 864	36 017	17 283	10 329	4 007	1 799	1 187	412	326	108 371
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	1 472	669	3 698	8 445	1 900	1 840	618	197	53	48	15	18 955
Queenstown-Lakes District	0	3	49	172	103	245	59	71	9	20	7	738
Central Otago District	153	349	2 793	1 256	746	414	356	359	478	49	95	7 048
Dunedin City	3 648	945	1 012	2 955	2 162	2 271	1 081	198	139	15	63	14 489
Clutha District	8 618	10 789	20 266	22 810	9 975	6 757	2 677	632	387	123	101	83 135
Southland District	7 449	7 719	21 022	26 063	7 560	3 356	3 108	786	435	43	15	77 556
Gore District	6	99	1 394	1 815	672	37	141	21	48	13	0	4 246
Invercargill City	0	33	79	174	105	65	145	66	16	5	0	688
Region total	21 346	20 606	50 313	63 690	23 223	14 985	8 185	2 330	1 565	316	296	206 855
South Island total	56 424	59 433	102 079	152 015	67 130	44 229	20 360	7 669	4 316	1 007	760	515 422
New Zealand total	222 274	189 051	320 679	492 231	260 104	162 549	64 919	20 889	9 979	2 030	1 868	1 746 573

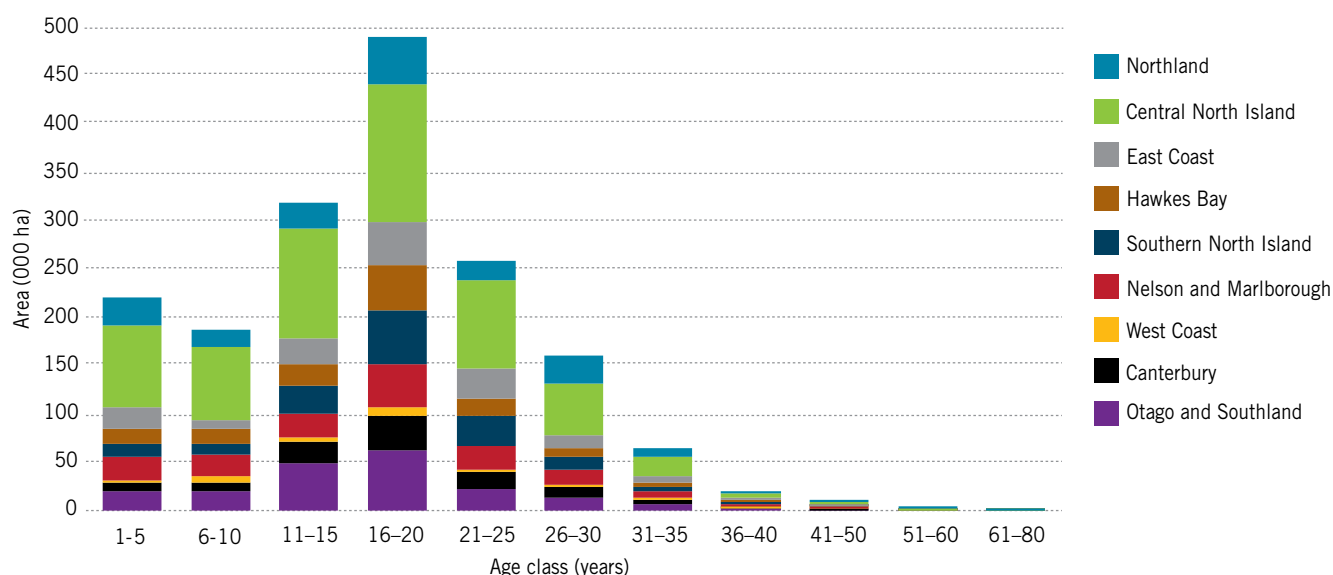
**Note**

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 910: FOREST AREA BY AGE CLASS AND SPECIES, AS AT 1 APRIL 2014

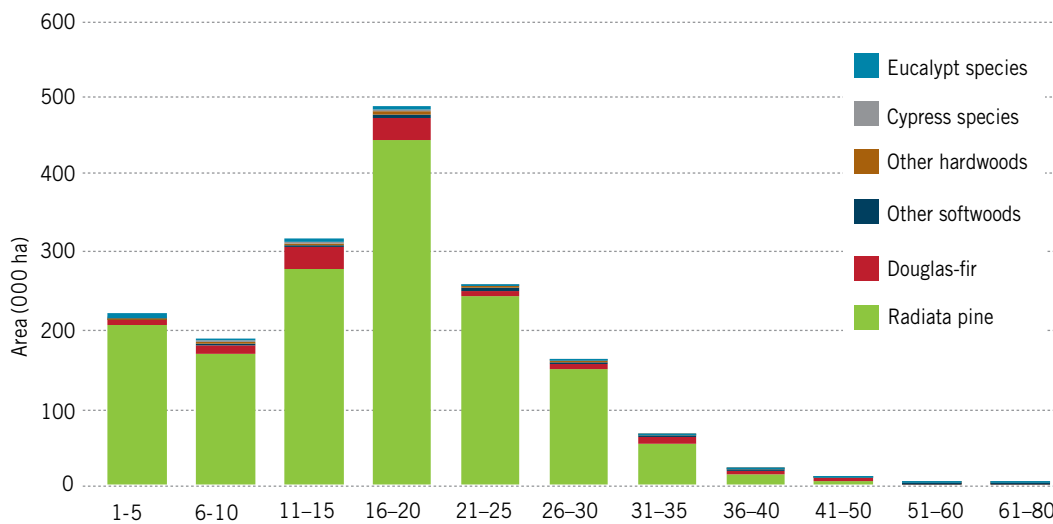


TABLE 9.10: AREA<sup>1</sup> PLANTED IN RADIATA PINE BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

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	14 981	9 803	9 428	18 726	6 754	15 976	6 200	1 532	342	10	0	83 752
Whangarei District	4 968	2 173	3 887	7 989	3 140	5 529	710	370	142	1	3	28 912
Kaipara District	4 920	1 889	4 206	10 510	5 565	7 146	602	145	126	7	6	35 122
Auckland Council	3 873	4 528	9 637	10 914	5 189	2 007	1 142	957	272	4	11	38 534
Region total	28 742	18 393	27 158	48 139	20 648	30 658	8 654	3 004	882	22	20	186 320
CENTRAL NORTH ISLAND WOOD SUPPLY REGION												
Thames-Coromandel District	3 371	3 408	2 378	2 604	1 922	739	841	275	27	20	16	15 601
Hauraki District	310	C	433	1 273	938	C	55	15	1	0	0	3 437
Waikato District	1 834	676	5 186	5 301	3 471	829	287	95	32	22	91	17 824
Matamata-Piako District	126	249	131	228	260	85	104	23	4	0	0	1 210
Hamilton City	0	0	0	0	0	0	1	0	0	0	0	1
Waipa District	254	102	454	790	379	31	63	7	3	0	3	2 086
Otorohanga District	160	294	1 476	1 459	828	180	40	22	5	0	0	4 464
South Waikato District	5 851	9 188	15 171	15 545	16 483	4 632	453	29	22	0	75	67 449
Waitomo District	1 431	3 453	5 765	9 375	1 866	703	381	26	0	0	0	23 000
Taupo District	27 721	25 641	32 833	26 591	20 551	19 660	8 624	247	74	34	26	162 002
Tauranga District	0	0	11	65	0	16	5	0	0	0	0	97
Ruapehu District	8 560	2 021	4 282	20 965	5 112	5 279	1 977	296	1	0	0	48 493
Western Bay of Plenty District	2 187	2 418	3 630	5 809	5 519	2 261	397	33	5	0	3	22 262
Rotorua District	7 107	9 076	12 657	10 358	8 108	1 920	368	78	51	3	18	49 744
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	19 544	C	21 700	36 348	20 507	C	1 435	515	195	32	6	121 809
Opotiki District	2 974	961	1 563	1 061	1 136	5 783	1 988	199	0	0	0	15 665
Region total	81 430	72 174	107 670	137 772	87 080	49 370	17 019	1 860	420	111	238	555 144
EAST COAST WOOD SUPPLY REGION												
Gisborne District	20 986	8 456	25 305	43 658	31 025	13 011	6 727	2 108	316	25	7	151 624
Region total	20 986	8 456	25 305	43 658	31 025	13 011	6 727	2 108	316	25	7	151 624
HAWKE'S BAY WOOD SUPPLY REGION												
Wairoa District	7 083	7 556	8 972	20 378	4 875	3 580	1 327	282	16	5	0	54 074
Hastings District	7 274	7 708	12 939	16 907	10 446	3 705	1 144	198	94	14	12	60 441
Napier City	0	0	0	54	6	8	0	0	0	0	0	68
Central Hawke's Bay District	1 086	554	1 700	8 132	2 418	764	501	206	71	11	15	15 458
Region total	15 443	15 818	23 611	45 471	17 745	8 057	2 972	686	181	30	27	130 041
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION												
New Plymouth District	86	78	737	1 107	617	478	63	76	6	0	0	3 248
Stratford District	0	74	389	2 229	890	107	55	8	0	0	1	3 753
South Taranaki District	349	158	1 375	4 112	2 900	511	331	69	33	1	6	9 845
Wanganui District	2 636	2 516	4 467	10 735	4 839	2 634	236	93	60	0	10	28 226
Rangitikei District	989	825	3 699	10 077	3 074	743	330	255	185	59	0	20 236
Manawatu District	665	95	1 082	2 066	1 660	366	476	163	33	0	5	6 611
Palmerston North City	420	424	143	363	469	69	153	203	18	0	0	2 262
Horowhenua District	372	770	1 002	1 209	2 201	379	239	98	22	35	5	6 332
Tararua District	1 694	885	2 139	6 598	2 248	658	712	308	65	11	7	15 325
Kapiti Coast District	66	83	751	931	718	746	142	91	5	0	0	3 533
Upper Hutt City	C	568	917	1 013	516	663	259	132	42	0	C	4 902
Porirua City	13	0	112	139	703	233	65	55	17	0	0	1 337
Wellington City	C	0	36	263	178	27	2	0	0	0	C	574
Lower Hutt City	0	0	10	100	0	19	133	33	0	0	0	295
Masterton District	2 367	2 217	5 165	9 410	6 988	3 809	1 531	408	252	50	5	32 202
Carterton District	1 304	520	2 565	3 152	1 290	943	319	197	98	2	1	10 391
South Wairarapa District	784	379	1 643	2 643	1 810	606	213	80	46	1	1	8 206
Region total	12 575	9 592	26 232	56 147	31 101	12 991	5 259	2 269	882	159	71	157 278
North Island total	159 176	124 433	209 976	331 187	187 599	114 087	40 631	9 927	2 681	347	363	1 180 407



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)
<b>NELSON &amp; MARLBOROUGH WOOD SUPPLY REGION</b>												
Tasman District	13 411	13 991	14 057	17 396	11 769	4 750	1 035	567	263	19	14	77 272
Nelson City	2 028	1 666	1 498	1 857	1 138	259	69	20	13	0	0	8 548
Marlborough District	8 567	7 186	8 644	22 334	9 841	9 214	2 222	729	306	25	2	69 070
Kaikoura District	109	17	205	702	106	35	23	47	1	2	0	1 247
<b>Region total</b>	<b>24 115</b>	<b>22 860</b>	<b>24 404</b>	<b>42 289</b>	<b>22 854</b>	<b>14 258</b>	<b>3 349</b>	<b>1 363</b>	<b>583</b>	<b>46</b>	<b>16</b>	<b>156 137</b>
<b>WEST COAST WOOD SUPPLY REGION</b>												
Buller District	872	153	131	950	339	416	94	14	4	0	0	2 973
Grey District	1 175	2 696	2 420	1 885	907	1 217	1 242	168	148	6	0	11 864
Westland District	1 137	1 484	1 094	2 905	241	225	65	378	84	1	0	7 614
<b>Region total</b>	<b>3 184</b>	<b>4 333</b>	<b>3 645</b>	<b>5 740</b>	<b>1 487</b>	<b>1 858</b>	<b>1 401</b>	<b>560</b>	<b>236</b>	<b>7</b>	<b>0</b>	<b>22 451</b>
<b>CANTERBURY WOOD SUPPLY REGION</b>												
Hurunui District	2 706	3 112	8 368	11 563	4 833	3 576	501	257	122	15	6	35 059
Waimakariri District	312	694	2 177	4 484	3 485	730	143	56	21	65	2	12 169
Selwyn District	851	361	1 037	2 414	1 930	1 283	390	211	49	C	C	8 537
Christchurch City	382	236	884	3 343	1 316	667	438	222	29	C	C	7 541
Ashburton District	329	293	472	894	240	236	97	92	40	5	15	2 713
Mackenzie District	146	75	240	937	574	75	103	34	117	2	0	2 303
Timaru District	190	372	662	2 170	1 597	1 084	159	28	25	1	0	6 288
Waimate District	851	538	699	3 141	788	883	504	21	21	34	5	7 485
<b>Region total</b>	<b>5 767</b>	<b>5 681</b>	<b>14 539</b>	<b>28 946</b>	<b>14 763</b>	<b>8 534</b>	<b>2 335</b>	<b>921</b>	<b>424</b>	<b>126</b>	<b>59</b>	<b>82 095</b>
<b>OTAGO &amp; SOUTHLAND WOOD SUPPLY REGION</b>												
Waitaki District	1 206	516	3 369	4 827	1 741	1 665	461	172	45	39	7	14 048
Queenstown-Lakes District	0	0	13	48	13	34	46	55	4	20	7	240
Central Otago District	0	45	297	700	413	169	151	72	10	3	69	1 929
Dunedin City	3 579	928	840	2 673	1 932	1 999	399	77	33	13	1	12 474
Clutha District	5 475	7 734	12 915	16 925	8 704	4 752	1 495	400	139	15	4	58 558
Southland District	4 037	4 323	8 796	12 918	5 777	2 569	1 766	474	321	16	0	40 997
Gore District	6	0	296	1 124	527	35	139	20	37	1	0	2 185
Invercargill City	0	33	79	168	103	58	144	66	16	5	0	672
<b>Region total</b>	<b>14 303</b>	<b>13 579</b>	<b>26 605</b>	<b>39 383</b>	<b>19 210</b>	<b>11 281</b>	<b>4 601</b>	<b>1 336</b>	<b>605</b>	<b>112</b>	<b>88</b>	<b>131 103</b>
<b>South Island total</b>	<b>47 369</b>	<b>46 453</b>	<b>69 193</b>	<b>116 358</b>	<b>58 314</b>	<b>35 931</b>	<b>11 686</b>	<b>4 180</b>	<b>1 848</b>	<b>291</b>	<b>163</b>	<b>391 786</b>
<b>New Zealand total</b>	<b>206 545</b>	<b>170 886</b>	<b>279 169</b>	<b>447 545</b>	<b>245 913</b>	<b>150 018</b>	<b>52 317</b>	<b>14 107</b>	<b>4 529</b>	<b>638</b>	<b>526</b>	<b>1 572 193</b>

**Note**

1. Net stocked planted production forest area.

**Symbol**

C Confidential.

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

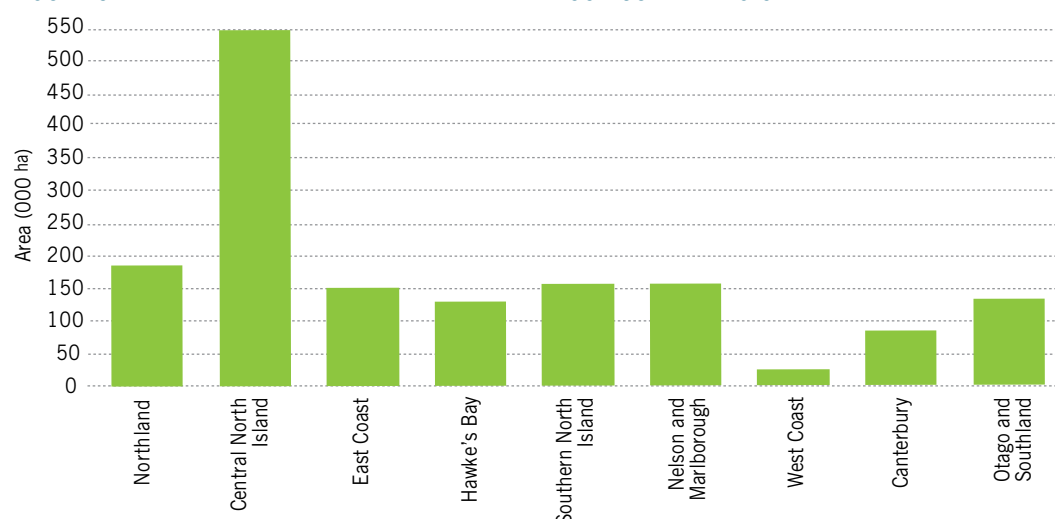


TABLE 9.11: AREA<sup>1</sup> PLANTED IN DOUGLAS-FIR BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

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
Auckland Council	0	0	0	6	0	0	0	0	0	0	0	6
Region total	0	0	0	8	0	0	0	2	0	0	0	10
CENTRAL NORTH ISLAND WOOD SUPPLY REGION												
Thames-Coromandel District	0	0	0	10	0	0	0	0	0	0	0	10
Hauraki District	0	0	0	0	0	0	0	0	0	0	0	0
Waikato District	0	0	0	1	6	1	0	0	0	0	0	8
Matamata-Piako District	0	1	3	0	0	0	0	0	0	0	0	4
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	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 District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	3	C	182	47	0	C	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	C	1 369	793	1 413	C	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	2 028	3 007	2 302	2 639	2 422	2 502	2 923	1 656	150	181	21 661
EAST COAST WOOD SUPPLY REGION												
Gisborne District	C	716	510	271	0	C	3	2	525	1	0	2 361
Region total	C	716	510	271	0	C	3	2	525	1	0	2 361
HAWKE'S BAY WOOD SUPPLY REGION												
Wairoa District	0	C	C	C	0	0	2	4	C	C	C	127
Hastings District	0	15	21	139	0	51	8	26	21	25	0	306
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	C	C	C	1	0	1	0	C	C	C	56
Region total	0	49	C	163	1	51	11	30	101	C	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	C	10	52	50	0	C	8	1	5	6	1	135
Manawatu District	0	2	5	0	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	C	8	11	1	1	C	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	C	6	11	4	0	C	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	C	36	131	57	8	C	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 & 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	C	170	449	288	C	C	C	124	C	C	1 305
Christchurch City	0	3	42	35	28	C	C	0	3	C	0	134
Ashburton District	15	38	172	83	74	C	C	69	3	12	2	518
Mackenzie District	131	C	333	295	74	C	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 & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	79	195	3 497	85	10	C	75	2	C	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	C	407	48	C	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

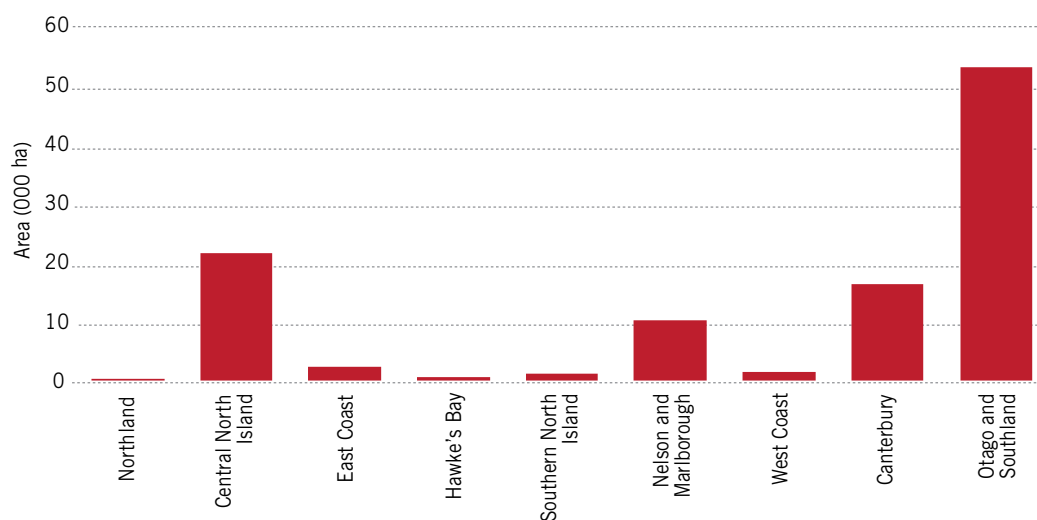


TABLE 9.12: AREA<sup>1</sup> PLANTED IN CYPRESS SPECIES BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

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	3	37	50	25	4	2	8	10	0	0	142
Whangarei District	0	0	8	13	3	0	2	0	0	0	0	26
Kaipara District	0	21	0	2	4	0	0	3	0	0	0	30
Auckland Council	8	18	40	65	35	17	0	4	1	0	0	188
Region total	11	42	85	130	67	21	4	15	11	0	0	386
CENTRAL NORTH ISLAND WOOD SUPPLY REGION												
Thames-Coromandel District	0	0	0	3	23	C	C	0	0	0	0	C
Hauraki District	0	0	0	0	0	C	C	0	0	0	0	C
Waikato District	0	C	0	0	0	C	C	0	0	0	0	C
Matamata-Piako District	0	0	0	0	0	0	0	0	0	0	0	0
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	0	0	0	0	0	0	0	0	0	0
Otorohanga District	0	0	0	0	0	4	0	0	0	0	0	4
South Waikato District	6	2	0	2	18	3	0	0	0	0	0	31
Waitomo District	0	0	0	1	0	0	0	0	0	0	0	1
Taupo District	150	167	1	74	0	3	0	0	0	0	0	395
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	1	C	1	0	0	C	C	0	0	0	26	C
Western Bay of Plenty District	9	42	0	13	1	6	2	0	0	0	0	73
Rotorua District	0	100	44	9	1	44	9	0	0	0	1	208
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	0	C	14	71	2	C	0	0	0	0	0	212
Opotiki District	2	0	0	0	0	1	0	0	0	0	0	3
Region total	168	373	60	173	45	203	50	0	0	0	27	1 099
EAST COAST WOOD SUPPLY REGION												
Gisborne District	0	27	81	43	38	11	11	24	30	0	4	269
Region total	0	27	81	43	38	11	11	24	30	0	4	269
HAWKE'S BAY WOOD SUPPLY REGION												
Wairoa District	0	9	162	0	0	0	0	0	0	0	13	184
Hastings District	39	103	31	7	2	0	0	0	0	0	0	182
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	3	0	10	0	11	14	0	0	0	0	38
Region total	39	115	193	17	2	11	14	0	0	0	13	404
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION												
New Plymouth District	0	0	0	0	0	3	0	0	0	0	1	4
Stratford District	3	0	0	4	0	3	2	0	0	0	1	13
South Taranaki District	0	1	4	0	0	0	0	0	0	0	0	5
Wanganui District	23	C	0	C	C	8	C	C	10	0	0	C
Rangitikei District	3	24	4	12	3	15	10	10	70	19	0	170
Manawatu District	0	C	0	C	C	12	C	C	1	0	1	C
Palmerston North City	21	0	0	0	0	0	0	0	0	0	0	21
Horowhenua District	2	0	0	6	0	1	1	0	0	0	0	10
Tararua District	0	0	0	0	0	0	0	0	0	0	0	0
Kapiti Coast District	0	0	1	0	0	6	0	0	0	0	0	7
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	0	16	6	9	5	0	0	0	0	36
Carterton District	0	2	0	1	0	0	0	0	0	0	0	3
South Wairarapa District	0	2	0	0	2	0	2	0	0	0	0	6
Region total	52	124	10	53	16	57	28	14	81	19	3	457
North Island total	295	667	411	356	153	342	82	48	120	7	32	2 513

TABLE 9.12: CONTINUED...

TERRITORIAL AUTHORITY	AGE CLASS (YEARS)											
	1-5 YEARS (HA)	6-10 YEARS (HA)	11-15 YEARS (HA)	16-20 YEARS (HA)	21-25 YEARS (HA)	26-30 YEARS (HA)	31-35 YEARS (HA)	36-40 YEARS (HA)	41-50 YEARS (HA)	51-60 YEARS (HA)	61-80 YEARS (HA)	TOTAL (HA)
NELSON & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	4	11	21	65	11	1	6	0	3	0	17	139
Nelson City	1	0	6	11	0	0	0	0	0	0	0	18
Marlborough District	11	40	55	35	18	15	3	1	0	0	1	179
Kaikoura District	0	0	8	0	0	0	0	0	0	0	0	8
Region total	16	51	90	111	29	16	9	1	3	0	18	344
WEST COAST WOOD SUPPLY REGION												
Buller District	0	0	0	5	0	11	0	0	0	0	10	26
Grey District	0	75	76	22	19	77	40	0	0	12	1	322
Westland District	4	1 768	1 062	1 086	118	268	132	0	0	0	1	4 439
Region total	4	1 843	1 138	1 113	137	356	172	0	0	12	12	4 787
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	18	46	32	5	5	1	0	0	0	6	7	120
Waimakariri District	0	0	8	0	12	5	0	0	0	0	0	25
Selwyn District	0	0	0	10	2	0	0	0	0	0	0	12
Christchurch City	0	C	0	90	113	0	C	0	1	1	0	208
Ashburton District	0	0	17	0	8	0	0	0	0	0	0	25
Mackenzie District	0	C	0	16	6	0	C	0	0	0	0	26
Timaru District	0	0	24	7	5	5	0	0	0	0	0	41
Waimate District	0	14	5	3	18	0	0	0	0	0	0	40
Region total	18	C	86	131	169	11	C	0	1	7	7	497
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	6	7	13	7	C	C	0	0	0	0	4	50
Queenstown-Lakes District	0	0	0	0	0	0	0	0	0	0	0	0
Central Otago District	0	0	0	0	4	0	0	0	0	0	0	4
Dunedin City	0	15	8	57	52	22	0	0	0	0	0	154
Clutha District	152	171	268	238	36	185	6	0	1	4	3	1 064
Southland District	64	38	115	49	C	C	74	0	0	0	0	399
Gore District	0	0	14	0	0	0	0	0	0	0	0	14
Invercargill City	0	0	0	4	1	7	1	0	0	0	0	13
Region total	222	231	418	355	110	269	81	0	1	4	7	1 698
South Island total	260	2 189	1 732	1 710	445	652	265	1	5	23	44	7 326
New Zealand total	530	2 870	2 161	2 126	613	955	372	54	127	42	91	9 941

**Note**

1. Net stocked planted production forest area.

**Symbol**

C Confidential.

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

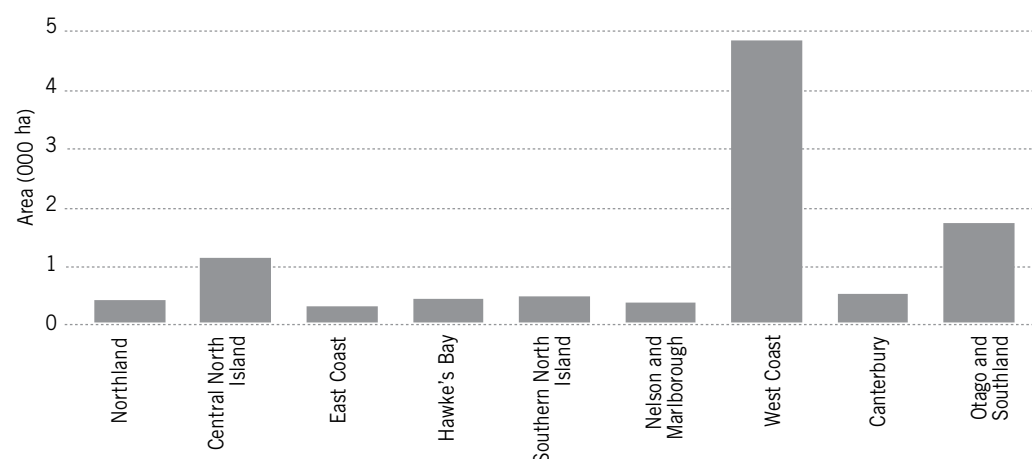


TABLE 9.13: AREA<sup>1</sup> PLANTED IN OTHER SOFTWOODS<sup>2</sup> BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

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	60	95	C	42	27	9	C	15	C	36	358
Whangarei District	2	2	40	125	7	3	1	3	0	17	11	211
Kaipara District	0	2	59	C	19	19	2	C	2	C	18	149
Auckland Council	7	12	58	54	28	23	12	16	12	3	4	229
Region total	11	76	252	264	96	72	24	21	29	33	69	947
Central North Island Wood Supply Region												
Thames-Coromandel District	0	0	8	10	C	C	2	3	3	0	44	C
Hauraki District	0	0	34	0	0	C	C	0	0	0	0	C
Waikato District	0	2	C	7	C	C	1	0	12	4	44	C
Matamata-Piako District	0	0	10	8	5	1	0	0	0	0	3	27
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	23	37	5	1	0	0	0	0	1	67
Otorohanga District	0	0	9	12	37	3	0	3	15	0	0	79
South Waikato District	0	C	C	0	6	C	1	26	3	0	27	88
Waitomo District	0	1	27	43	9	3	3	9	1	0	0	96
Taupo District	84	29	36	39	20	16	39	82	42	4	24	415
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	1	C	126	173	64	C	C	75	12	1	31	C
Western Bay of Plenty District	9	26	56	143	19	1	2	0	0	7	8	271
Rotorua District	60	24	101	79	63	35	76	22	19	14	40	533
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	0	C	7	113	24	C	1	10	3	20	10	209
Opotiki District	0	0	2	2	2	0	2	0	0	0	0	8
Region total	154	97	538	666	293	136	143	230	110	50	232	2 649
East Coast Wood Supply Region												
Gisborne District	87	66	91	90	44	21	71	98	302	185	6	1 061
Region total	87	66	91	90	44	21	71	98	302	185	6	1 061
Hawke's Bay Wood Supply Region												
Wairoa District	C	C	149	51	9	C	C	C	C	C	C	475
Hastings District	84	16	40	46	41	34	25	13	13	6	18	336
Napier City	0	0	0	0	0	2	0	0	0	0	0	2
Central Hawke's Bay District	C	C	42	18	9	C	C	C	C	C	C	170
Region total	232	32	231	115	59	61	45	C	C	C	70	983
Southern North Island Wood Supply Region												
New Plymouth District	6	109	148	313	21	4	6	1	3	0	0	611
Stratford District	9	1	11	13	1	1	0	1	0	0	0	37
South Taranaki District	0	4	42	27	16	7	0	0	0	0	3	99
Wanganui District	1	C	127	68	C	14	C	1	14	5	1	C
Rangitikei District	278	205	285	31	36	12	6	6	0	9	11	879
Manawatu District	0	C	49	20	C	9	C	3	0	2	8	C
Palmerston North City	5	0	0	0	1	0	0	0	0	0	0	6
Horowhenua District	0	0	2	16	18	1	0	3	0	1	0	41
Tararua District	0	2	22	11	2	8	261	1	0	0	2	309
Kapiti Coast District	0	0	16	6	6	1	0	0	0	0	0	29
Upper Hutt City	0	0	1	6	13	39	32	0	2	18	0	111
Porirua City	0	0	0	6	0	0	0	0	0	0	0	6
Wellington City	0	0	0	0	0	0	0	0	0	0	0	0
Lower Hutt City	0	0	0	2	2	0	0	0	0	0	0	4
Masterton District	17	14	56	63	40	35	26	0	45	13	1	310
Carterton District	0	0	11	9	8	3	1	0	40	2	0	74
South Wairarapa District	0	1	11	6	5	0	1	0	0	5	0	29
Region total	316	354	781	597	192	134	342	16	104	55	26	2 917
North Island total	800	625	1 893	1 732	684	424	625	430	581	360	403	8 557



TABLE 9.13: CONTINUED...

TERRITORIAL AUTHORITY	AGE CLASS (YEARS)											
	1-5 YEARS (HA)	6-10 YEARS (HA)	11-15 YEARS (HA)	16-20 YEARS (HA)	21-25 YEARS (HA)	26-30 YEARS (HA)	31-35 YEARS (HA)	36-40 YEARS (HA)	41-50 YEARS (HA)	51-60 YEARS (HA)	61-80 YEARS (HA)	TOTAL (HA)
NELSON & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	C	C	91	172	39	111	233	101	43	C	C	910
Nelson City	0	0	0	1	1	0	38	18	3	7	14	82
Marlborough District	C	C	125	145	44	86	15	17	15	C	C	522
Kaikoura District	0	0	7	0	0	0	1	0	0	0	0	8
Region total	C	C	223	318	84	197	287	136	61	26	43	1 522
WEST COAST WOOD SUPPLY REGION												
Buller District	0	0	3	23	10	0	4	61	14	0	6	121
Grey District	0	1	2	6	2	20	156	55	77	89	0	408
Westland District	0	27	163	85	11	7	32	6	29	7	0	367
Region total	0	28	168	114	23	27	192	122	120	96	6	896
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	297	1 364	216	45	26	262	398	39	217	34	89	2 987
Waimakariri District	2	21	5	48	108	6	10	30	1	1	0	232
Selwyn District	0	C	30	164	52	C	C	C	0	C	C	361
Christchurch City	0	1	49	522	514	C	C	1	3	2	6	1 166
Ashburton District	0	16	47	51	19	C	C	0	0	30	11	238
Mackenzie District	31	C	18	155	150	C	C	C	157	C	C	871
Timaru District	17	29	36	308	22	241	34	5	5	17	2	716
Waimate District	50	42	61	152	48	74	216	4	1	5	5	658
Region total	397	1 484	462	1 445	939	897	C	153	384	189	C	7 229
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	111	17	53	161	C	C	19	1	C	8	0	438
Queenstown-Lakes District	0	3	5	14	9	10	0	0	3	0	0	44
Central Otago District	82	76	164	361	253	132	136	205	418	37	25	1 889
Dunedin City	4	2	5	32	47	41	23	20	0	2	30	206
Clutha District	81	25	249	199	144	131	225	15	10	25	67	1 171
Southland District	20	12	77	101	C	C	134	275	C	3	11	842
Gore District	0	2	5	59	83	0	0	0	4	0	0	153
Invercargill City	0	0	0	2	1	0	0	0	0	0	0	3
Region total	298	137	558	929	705	403	537	516	455	75	133	4 746
South Island total	711	1 780	1 411	2 806	1 751	1 524	1 754	927	1 020	386	323	14 393
New Zealand total	1 511	2 405	3 304	4 538	2 435	1 948	2 379	1 357	1 601	746	726	22 950

**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

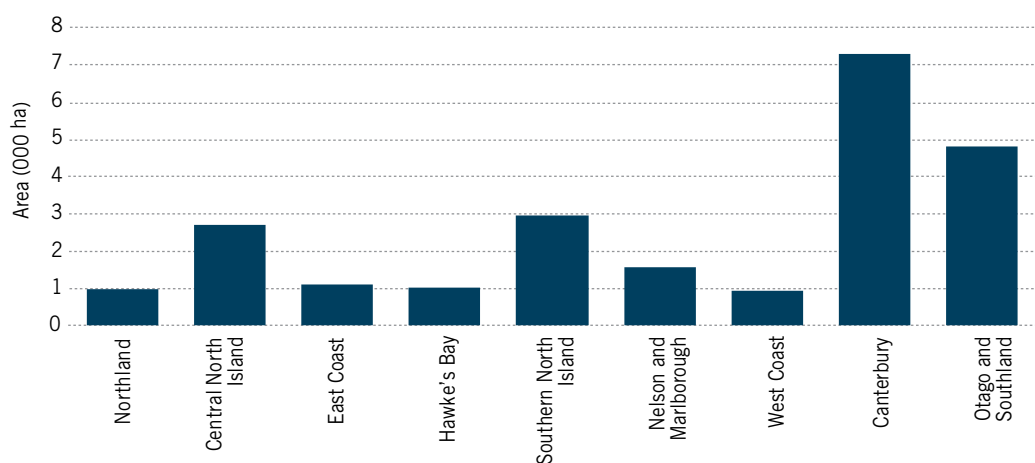


TABLE 9.14: AREA<sup>1</sup> PLANTED IN EUCALYPTS SPECIES BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

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	0	23	C	0	91	48	C	1	C	0	219
Whangarei District	0	0	0	0	41	5	67	11	0	0	1	125
Kaipara District	0	0	0	C	0	3	1	C	14	C	0	170
Auckland Council	6	30	12	3	12	3	6	8	3	4	0	87
Region total	11	30	35	165	53	102	122	55	18	9	1	601
Central North Island Wood Supply Region												
Thames-Coromandel District	0	0	0	1	0	C	C	34	0	6	1	106
Hauraki District	0	0	1	0	0	0	0	0	0	0	0	1
Waikato District	0	0	0	2	0	2	0	0	0	0	0	4
Matamata-Piako District	0	0	0	0	0	0	0	0	0	0	0	0
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	191	155	0	0	0	0	0	0	0	346
Otorohanga District	0	0	0	0	0	4	0	0	0	0	0	4
South Waikato District	1 849	328	495	32	197	22	4	0	4	0	0	2 931
Waitomo District	0	0	0	0	2	C	C	4	0	0	0	33
Taupo District	1 120	22	193	745	218	31	11	5	207	0	1	2 553
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	0	0	2	2	0	0	1	0	0	0	1	6
Western Bay of Plenty District	0	37	158	17	9	0	32	5	0	66	11	335
Rotorua District	0	35	80	136	1	25	1	1	0	0	10	289
Kawerau District	0	0	20	11	0	0	0	0	0	0	0	31
Whakatane District	0	40	162	232	44	6	2	2	0	0	0	488
Opotiki District	0	0	0	0	0	8	0	2	0	0	0	10
Region total	2 969	462	1 302	1 333	471	133	107	53	211	72	24	7 137
East Coast Wood Supply Region												
Gisborne District	676	113	10	19	195	30	78	11	2	1	0	1 135
Region total	676	113	10	19	195	30	78	11	2	1	0	1 135
Hawke's Bay Wood Supply Region												
Wairoa District	91	8	C	0	0	0	0	0	C	0	22	258
Hastings District	C	3	C	3	3	26	2	C	0	1	0	422
Napier City	0	0	0	0	6	0	0	0	0	0	0	6
Central Hawke's Bay District	C	0	C	0	0	0	3	C	C	0	0	143
Region total	593	11	C	3	9	26	5	C	C	1	22	829
Southern North Island Wood Supply Region												
New Plymouth District	0	0	0	0	0	0	0	0	0	0	1	1
Stratford District	0	0	0	0	0	0	0	0	0	0	1	1
South Taranaki District	3	0	0	0	1	0	0	0	0	0	0	4
Wanganui District	0	0	0	C	0	0	1	C	0	0	0	19
Rangitikei District	7	4	3	8	7	3	3	0	1	0	0	36
Manawatu District	0	0	8	C	0	0	0	C	0	0	0	11
Palmerston North City	2	0	0	0	0	0	0	0	0	0	0	2
Horowhenua District	0	0	0	1	0	19	0	2	0	0	0	22
Taranua District	270	0	0	0	0	0	0	0	0	0	0	270
Kapiti Coast District	0	0	0	0	1	0	0	0	0	0	0	1
Upper Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Porirua City	0	0	0	0	0	0	0	0	0	0	0	0
Wellington City	0	0	0	0	0	0	0	0	0	0	0	0
Lower Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Masterton District	0	2	0	0	2	2	0	0	1	1	0	8
Carterton District	0	0	0	0	0	0	0	0	0	0	1	1
South Wairarapa District	0	0	0	0	50	1	3	120	0	0	0	174
Region total	282	6	11	12	61	25	7	140	2	1	3	550
North Island total	4 531	622	1 498	1 532	789	316	319	271	240	84	50	10 252

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 & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	0	0	0	7	3	41	109	147	5	0	3	315
Nelson City	0	0	0	0	1	0	20	2	0	0	0	23
Marlborough District	1	20	1	1	4	57	68	18	0	0	1	171
Kaikoura District	0	0	0	0	0	0	0	0	0	0	0	0
Region total	1	20	1	8	8	98	197	167	5	0	4	509
WEST COAST WOOD SUPPLY REGION												
Buller District	0	0	0	0	0	0	2	1	3	0	7	13
Grey District	0	0	0	1	2	0	12	9	14	1	0	39
Westland District	0	0	0	3	0	1	21	19	0	0	0	44
Region total	0	0	0	4	2	1	35	29	17	1	7	96
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	0	0	14	0	0	3	0	0	0	0	0	17
Waimakariri District	0	0	0	0	0	0	0	0	0	0	0	0
Selwyn District	0	0	2	0	1	1	5	0	0	0	0	9
Christchurch City	0	0	0	29	0	0	0	0	0	0	0	44
Ashburton District	0	0	0	0	0	3	0	0	0	0	0	3
Mackenzie District	0	0	0	0	0	8	6	0	0	0	0	14
Timaru District	0	0	3	1	0	0	0	0	0	0	0	13
Waimate District	0	0	0	0	0	0	2	0	0	0	0	2
Region total	0	0	19	30	0	15	13	0	0	0	0	102
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	48	0	5	0	5	78	20	2	1	0	1	160
Queenstown-Lakes District	0	0	0	0	0	0	0	0	0	0	0	0
Central Otago District	0	0	0	1	0	1	8	21	0	0	0	31
Dunedin City	0	0	0	3	13	34	16	3	0	0	0	69
Clutha District	32	57	677	75	1	114	94	26	4	0	8	1 088
Southland District	1 795	1 025	2 960	3 413	1 369	186	53	5	14	0	2	10 822
Gore District	0	97	1	564	35	0	0	0	0	0	0	697
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	1 875	1 179	3 643	4 056	1 423	413	191	57	19	0	11	12 867
South Island total	1 876	1 199	3 663	4 098	1 448	527	436	253	41	1	32	13 574
New Zealand total	6 407	1 821	5 161	5 630	2 237	843	755	524	281	85	82	23 826

**Note**

1. Net stocked planted production forest area.

**Symbol**

C Confidential.

FIGURE 9.15: AREA PLANTED IN EUCALYPTS SPECIES BY WOOD SUPPLY REGION

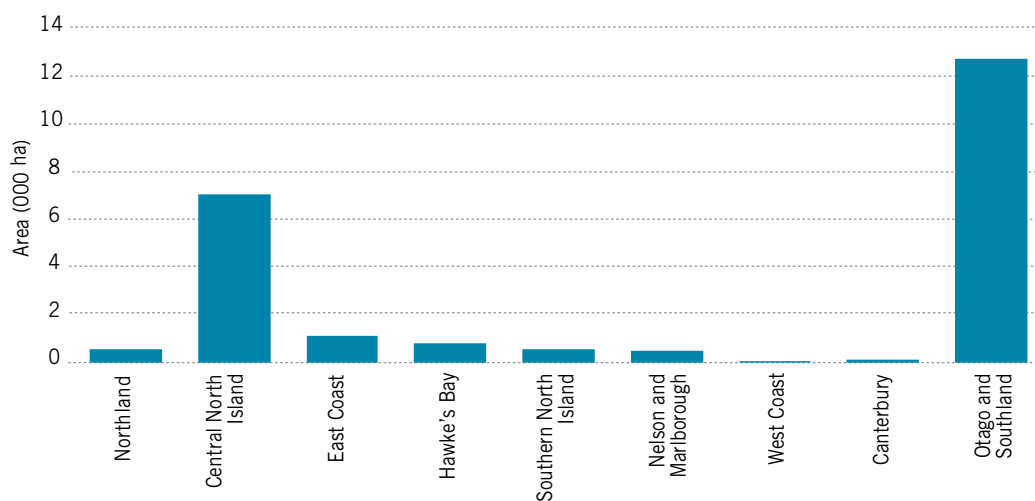


TABLE 9.15: AREA<sup>1</sup> PLANTED IN OTHER HARDWOODS BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

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	207	540	367	50	76	88	34	20	1	3	1 391
Whangarei District	0	0	51	206	84	55	29	7	1	0	2	435
Kaipara District	0	200	131	270	43	10	19	8	8	0	0	689
Auckland Council	1	14	163	236	88	78	83	38	16	7	9	733
Region total	6	421	885	1 079	265	219	219	87	45	8	14	3 248
Central North Island Wood Supply Region												
Thames-Coromandel District	0	0	3	21	C	4	C	4	2	0	2	58
Hauraki District	2	0	1	17	6	0	0	0	0	0	6	32
Waikato District	1	C	C	30	C	19	C	1	4	0	1	130
Matamata-Piako District	0	0	6	5	13	0	1	0	0	0	0	25
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	114	85	3	2	9	0	0	0	0	213
Otorohanga District	0	6	11	7	13	36	0	0	0	0	2	75
South Waikato District	9	C	C	38	7	C	3	0	0	2	0	97
Waitomo District	0	0	17	35	15	C	C	0	2	0	0	113
Taupo District	15	5	66	110	19	34	5	9	15	0	0	278
Tauranga District	0	0	3	8	1	0	1	0	0	0	0	13
Ruapehu District	0	1	0	5	0	0	0	1	0	0	0	7
Western Bay of Plenty District	6	10	50	53	50	51	30	2	0	1	0	253
Rotorua District	0	12	143	205	52	94	9	7	24	2	9	557
Kawerau District	0	0	0	3	0	0	0	0	0	0	0	3
Whakatane District	0	3	74	74	40	C	C	2	0	2	0	217
Opotiki District	0	1	15	6	5	0	0	0	0	0	0	27
Region total	33	64	562	702	264	286	87	26	47	7	20	2 098
East Coast Wood Supply Region												
Gisborne District	C	35	19	76	94	C	41	15	8	7	38	474
Region total	C	35	19	76	94	C	41	15	8	7	38	474
Hawke's Bay Wood Supply Region												
Wairoa District	C	7	12	C	0	C	C	C	0	3	0	107
Hastings District	C	37	C	29	14	35	20	C	0	1	5	393
Napier City	0	0	0	0	0	2	0	0	0	0	0	2
Central Hawke's Bay District	C	0	C	C	9	C	C	C	0	3	7	141
Region total	226	44	81	68	23	139	26	17	0	7	12	643
Southern North Island Wood Supply Region												
New Plymouth District	1	0	17	24	10	6	1	0	0	0	0	59
Stratford District	0	3	8	24	29	1	1	0	0	0	0	66
South Taranaki District	0	1	17	19	16	1	3	0	0	0	0	57
Wanganui District	1	3	34	13	28	9	1	0	4	0	6	99
Rangitikei District	C	1	40	43	41	C	2	4	3	39	5	183
Manawatu District	0	1	14	25	24	24	16	0	0	0	1	105
Palmerston North City	0	0	8	18	36	0	0	0	0	0	0	62
Horowhenua District	0	0	1	32	37	3	1	0	0	2	0	76
Tararua District	0	2	20	9	10	10	3	7	3	0	0	64
Kapiti Coast District	0	0	5	12	13	0	1	0	0	0	0	31
Upper Hutt City	C	0	0	2	1	C	19	0	0	0	0	25
Porirua City	0	0	0	0	0	2	0	0	0	0	0	2
Wellington City	0	0	0	0	0	0	0	0	0	0	0	0
Lower Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Masterton District	C	5	22	23	3	C	13	2	3	1	0	112
Carterton District	0	0	1	1	11	2	10	12	0	0	0	37
South Wairarapa District	0	1	0	9	80	27	9	0	0	0	0	126
Region total	C	17	187	254	339	C	80	25	13	42	12	1 104
North Island total	314	581	1 734	2 179	985	871	453	170	113	71	96	7 567

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 & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	C	C	17	108	61	42	31	52	4	C	C	357
Nelson City	0	0	0	4	6	0	0	0	3	2	0	15
Marlborough District	C	C	17	89	39	24	34	29	2	C	C	261
Kaikoura District	0	0	0	0	0	0	0	3	0	0	0	3
Region total	C	C	34	201	106	66	65	84	9	41	6	636
WEST COAST WOOD SUPPLY REGION												
Buller District	0	0	1	7	3	0	0	0	0	0	1	12
Grey District	0	117	9	4	8	16	29	2	0	0	0	185
Westland District	0	203	34	277	663	542	89	1	0	0	0	1 809
Region total	0	320	44	288	674	558	118	3	0	0	1	2 006
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	0	3	18	29	15	11	3	0	1	0	0	80
Waimakariri District	0	0	0	40	71	16	0	0	0	0	0	127
Selwyn District	0	0	5	22	38	4	1	1	0	3	0	74
Christchurch City	0	C	322	361	C	19	22	0	0	0	C	973
Ashburton District	0	0	3	24	12	6	0	0	0	0	0	45
Mackenzie District	0	C	4	32	3	2	3	0	0	0	C	62
Timaru District	0	0	12	35	C	12	0	0	42	0	C	120
Waimate District	0	3	0	23	23	2	0	0	4	2	1	58
Region total	0	C	364	566	C	72	29	1	47	5	37	1 539
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	24	0	2	54	52	12	3	5	0	0	3	155
Queenstown-Lakes District	0	0	0	0	0	3	0	0	0	0	0	3
Central Otago District	49	0	7	26	40	8	0	1	3	0	1	135
Dunedin City	0	0	2	13	27	13	0	0	0	0	15	70
Clutha District	0	0	12	40	21	32	34	2	7	12	13	173
Southland District	2	10	23	107	58	18	8	1	1	0	2	230
Gore District	0	0	6	2	6	2	0	0	0	0	0	16
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	75	10	52	242	204	88	45	9	11	12	34	782
South Island total	80	359	494	1 297	1 392	784	257	97	67	58	78	4 963
New Zealand total	394	940	2 228	3 476	2 377	1 655	710	267	180	129	174	12 530

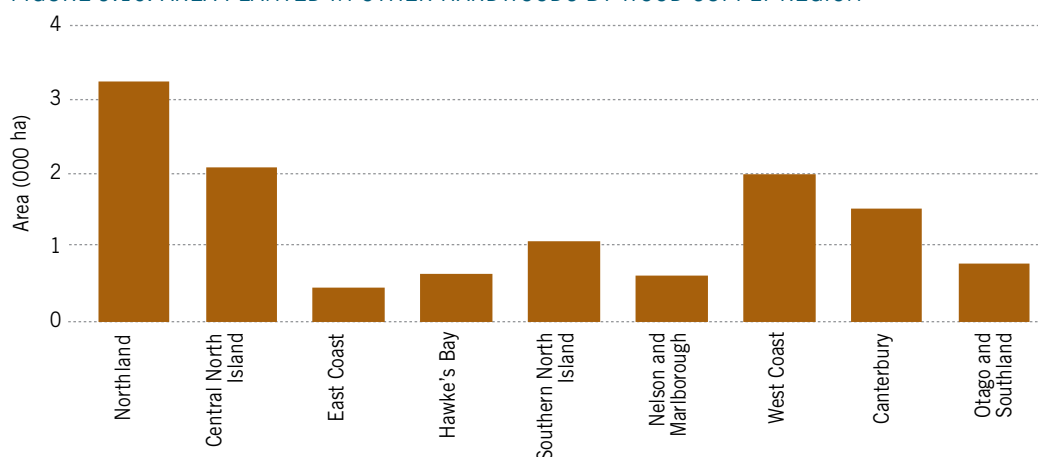
**Note**

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 2014

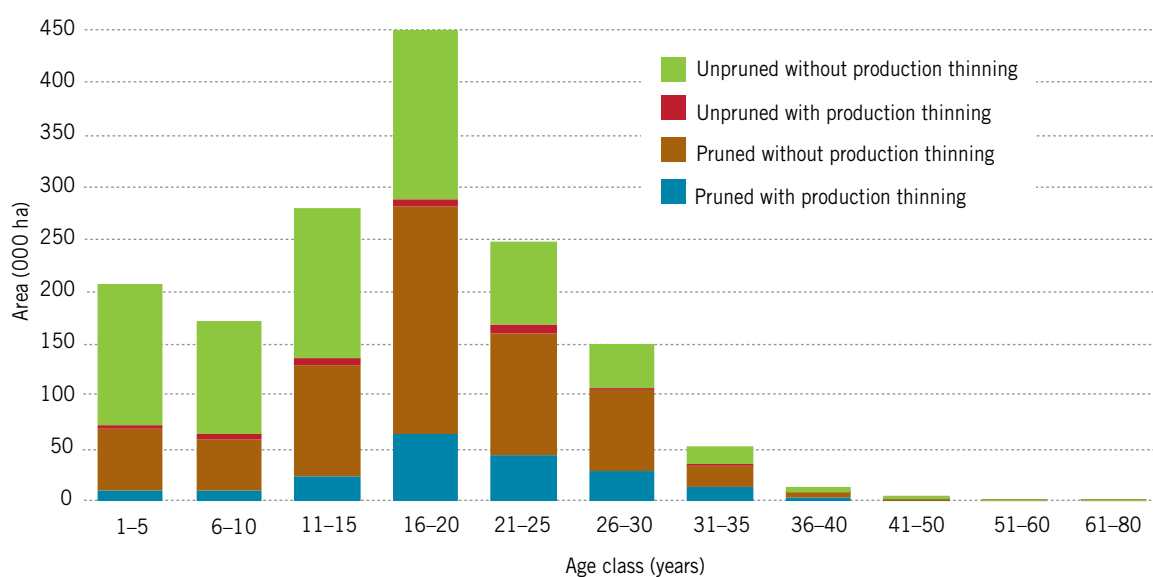




TABLE 9.16: AREA<sup>1</sup> OF RADIATA PINE PRUNED WITH PRODUCTION THINNING, BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

1 APRIL 2014	AGE CLASS (YEARS)											
TERRITORIAL AUTHORITY	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	515	373	536	1 769	1 425	C	C	C	23	0	0	12 861
Whangarei District	13	20	299	1 392	967	165	106	148	113	0	1	3 224
Kaipara District	0	15	122	2 115	749	C	C	C	10	0	4	4 203
Auckland Council	79	8	695	2 031	801	292	97	407	25	1	0	4 436
Region total	607	416	1 652	7 307	3 942	C	C	1 273	171	1	5	24 724
CENTRAL NORTH ISLAND WOOD SUPPLY REGION												
Thames-Coromandel District	C	C	73	290	154	C	49	C	1	0	0	802
Hauraki District	0	0	24	190	153	32	30	10	0	0	0	439
Waikato District	C	6	2 303	496	458	C	82	31	0	5	43	3 512
Matamata-Piako District	0	0	54	97	28	12	19	5	1	0	0	216
Hamilton City	0	0	0	0	0	0	1	0	0	0	0	1
Waipa District	170	102	189	518	121	20	44	4	3	0	1	1 172
Otorohanga District	0	21	110	261	225	19	13	2	0	0	0	651
South Waikato District	C	2	20	76	96	43	40	C	0	0	0	280
Waitomo District	C	29	439	1 792	398	C	71	12	0	0	0	2 940
Taupo District	4 923	4 314	3 825	3 119	5 841	11 756	4 530	117	16	0	0	38 441
Tauranga District	0	0	1	8	0	0	5	0	0	0	0	14
Ruapehu District	95	87	516	3 368	785	470	337	31	0	0	0	5 689
Western Bay of Plenty District	296	347	613	1 839	2 223	464	144	8	0	0	0	5 934
Rotorua District	1 326	985	1 312	2 069	2 029	406	175	45	2	0	8	8 357
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	1 392	C	2 266	7 726	5 341	C	327	24	6	0	0	21 168
Opotiki District	5	0	3	6	34	0	11	0	0	0	0	59
Region total	8 332	7 414	11 748	21 855	17 886	16 111	5 878	365	29	5	52	89 675
EAST COAST WOOD SUPPLY REGION												
Gisborne District	44	36	523	1 815	1 479	178	205	59	2	0	0	4 341
Region total	44	36	523	1 815	1 479	178	205	59	2	0	0	4 341
HAWKE'S BAY WOOD SUPPLY REGION												
Wairoa District	105	40	67	341	515	83	120	26	4	0	0	1 301
Hastings District	185	52	264	1 969	1 927	352	388	101	4	0	1	5 243
Napier City	0	0	0	6	0	2	0	0	0	0	0	8
Central Hawke's Bay District	170	50	296	1 992	1 119	183	343	116	13	0	0	4 282
Region total	460	142	627	4 308	3 561	620	851	243	21	0	1	10 834
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION												
New Plymouth District	C	4	137	C	227	182	C	21	1	0	0	923
Stratford District	0	13	106	517	491	45	18	6	0	0	1	1 197
South Taranaki District	243	51	600	1 772	619	160	195	49	4	0	3	3 696
Wanganui District	9	240	1 702	3 652	1 367	C	121	36	C	0	0	8 362
Rangitikei District	66	76	577	1 945	1 372	416	119	95	31	0	0	4 697
Manawatu District	82	44	317	829	767	191	196	36	9	0	0	2 471
Palmerston North City	0	102	117	C	135	25	C	71	0	0	0	649
Horowhenua District	0	21	165	477	1 095	283	161	33	8	5	1	2 249
Tararua District	145	46	148	725	841	150	198	60	7	0	0	2 320
Kapiti Coast District	0	0	358	426	186	68	18	11	1	0	0	1 068
Upper Hutt City	0	0	18	168	25	42	33	10	6	0	24	326
Porirua City	0	0	0	69	53	110	61	0	0	0	0	293
Wellington City	C	0	0		77	2	2	0	0	0	0	172
Lower Hutt City	0	0	0	46	0	3	15	14	0	0	0	78
Masterton District	38	33	230	499	697	32	27	44	1	4	0	1 605
Carterton District	0	4	29	40	52	3	10	1	4	0	0	143
South Wairarapa District	29	31	162	95	76	C	24	0	C	0	0	445
Region total	681	665	4 666	11 791	8 080	C	C	487	129	9	29	30 694
North Island total	10 124	8 673	19 216	47 076	34 948	25 915	11 435	2 427	352	15	87	160 268

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 & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	36	138	330	1 464	899	267	126	170	25	0	1	3 456
Nelson City	0	0	0	94	1	0	C	0	0	0	C	95
Marlborough District	71	90	805	3 235	1 511	764	C	90	7	0	C	6 915
Kaikoura District	0	0	27	128	15	4	7	0	0	0	0	181
Region total	107	228	1 162	4 921	2 426	1 035	C	260	32	0	C	10 647
WEST COAST WOOD SUPPLY REGION												
Buller District	0	0	12	72	58	2	0	0	0	0	0	144
Grey District	0	110	7	115	69	32	79	24	0	0	0	436
Westland District	6	0	24	56	7	23	0	0	0	0	0	116
Region total	6	110	43	243	134	57	79	24	0	0	0	696
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	22	80	401	1 571	561	380	152	65	73	3	0	3 308
Waimakariri District	0	63	152	646	910	167	C	16	0	C	0	2 057
Selwyn District	C	C	54	428	267	125	C	10	C	C	C	1 058
Christchurch City	0	1	417	953	210	86	C	94	3	C	C	1 981
Ashburton District	0	12	21	243	55	18	42	0	28	0	0	419
Mackenzie District	0	4	33	197	51	31	33	0	1	0	0	350
Timaru District	C	C	187	623	260	113	71	22	C	1	C	1 310
Waimate District	0	8	61	302	95	110	28	2	0	0	0	606
Region total	38	177	1 326	4 963	2 409	1 030	C	209	142	30	C	11 089
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	50	11	202	821	376	44	140	34	2	0	0	1 680
Queenstown-Lakes District	0	0	0	15	0	10	31	55	0	0	0	111
Central Otago District	0	40	22	61	70	54	72	5	1	0	37	362
Dunedin City	18	5	117	497	410	53	0	0	0	0	0	1 100
Clutha District	6	42	398	2 475	1 354	459	100	31	37	0	0	4 902
Southland District	128	166	1 438	1 487	642	284	278	125	100	0	0	4 648
Gore District	0	0	75	561	54	4	19	3	16	0	0	732
Invercargill City	0	3	0	49	14	0	1	0	0	0	0	67
Region total	202	267	2 252	5 966	2 920	908	641	253	156	0	37	13 602
South Island total	353	782	4 783	16 093	7 889	3 030	1 953	746	330	30	45	36 034
New Zealand total	10 477	9 455	23 999	63 169	42 837	28 945	13 388	3 173	682	45	132	196 302

**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

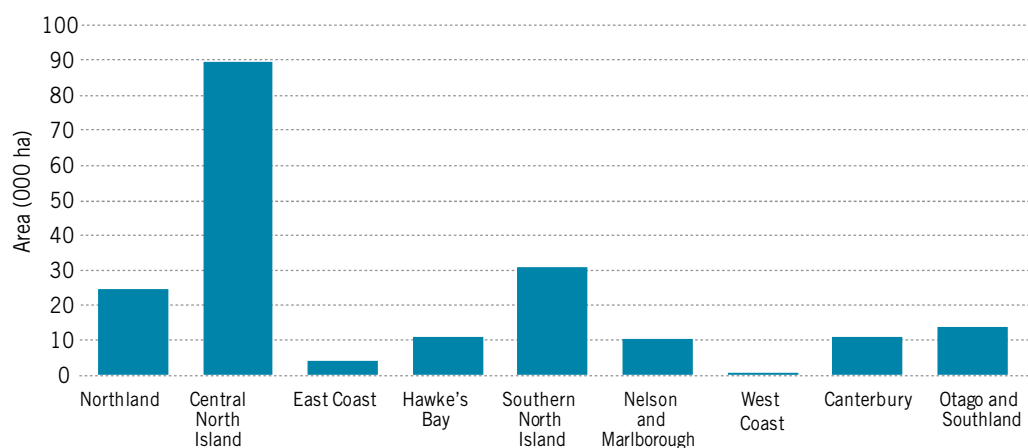


TABLE 9.17: AREA<sup>1</sup> OF RADIATA PINE PRUNED WITHOUT PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

1 APRIL 2014	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)
TERRITORIAL AUTHORITY												
NORTHLAND WOOD SUPPLY REGION												
Far North District	1 215	1 490	2 674	11 952	2 838	C	C	C	86	1	0	27 686
Whangarei District	326	118	684	4 383	1 171	1 298	164	56	3	0	2	8 205
Kaipara District	672	664	1 137	2 995	1 099	C	C	C	39	5	0	7 404
Auckland Council	565	821	2 244	3 275	1 103	929	721	490	238	0	2	10 388
Region total	2 778	3 093	6 739	22 605	6 211	C	C	732	366	6	4	53 683
CENTRAL NORTH ISLAND WOOD SUPPLY REGION												
Thames-Coromandel District	C	C	99	511	196	C	688	C	1	0	0	1 844
Hauraki District	36	0	200	934	426	72	0	0	0	0	0	1 668
Waikato District	C	77	1 507	2 262	990	C	31	29	15	0	1	5 643
Matamata-Piako District	0	1	46	118	190	32	41	4	1	0	0	433
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	14	0	188	153	113	5	15	2	0	0	0	490
Otorohanga District	120	227	782	548	262	48	13	20	0	0	0	2 020
South Waikato District	C	341	474	609	4 196	3 165	247	C	6	0	0	9 298
Waitomo District	C	563	3 371	5 044	1 042	C	155	2	0	0	0	10 699
Taupo District	9 108	14 429	11 254	9 049	5 852	5 672	1 720	87	9	9	22	57 211
Tauranga District	0	0	10	57	0	16	0	0	0	0	0	83
Ruapehu District	3 448	278	1 356	4 987	1 620	1 627	1 128	7	0	0	0	14 451
Western Bay of Plenty District	990	318	1 055	2 771	2 011	1 543	196	22	5	0	0	8 911
Rotorua District	2 077	3 524	4 234	5 832	3 558	1 208	119	20	14	3	1	20 590
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	2 165	1 572	4 476	14 214	9 566	3 561	964	462	152	1	0	37 133
Opotiki District	401	59	798	408	597	3 279	438	181	0	0	0	6 161
Region total	18 785	21 442	29 850	47 497	30 619	21 545	5 755	902	203	13	24	176 635
EAST COAST WOOD SUPPLY REGION												
Gisborne District	12 991	4 314	16 274	33 333	23 124	10 212	4 537	1 153	110	22	1	106 071
Region total	12 991	4 314	16 274	33 333	23 124	10 212	4 537	1 153	110	22	1	106 071
HAWKE'S BAY WOOD SUPPLY REGION												
Wairoa District	5 700	5 236	7 150	17 072	4 071	2 399	C	253	C	C	0	42 374
Hastings District	1 589	2 148	6 589	9 425	6 827	3 080	540	45	13	2	1	30 259
Napier City	0	0	0	47	6	0	0	0	0	0	0	53
Central Hawke's Bay District	366	478	981	3 727	871	366	C	47	C	C	1	6 878
Region total	7 655	7 862	14 720	30 271	11 775	5 845	1 052	345	32	5	2	79 564
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION												
New Plymouth District	82	74	491	C	234	214	C	25	0	0	0	1 595
Stratford District	0	44	128	1 612	265	53	29	0	0	0	0	2 131
South Taranaki District	C	59	423	1 355	1 857	154	53	7	0	0	C	C
Wanganui District	C	1 439	1 283	C	3 082	C	30	19	C	0	1	13 819
Rangitikei District	370	108	1 311	4 414	891	219	109	33	2	0	0	7 457
Manawatu District	38	40	248	790	438	66	235	79	5	0	0	1 939
Palmerston North City	249	0	3	C	236	3	C	21	1	0	0	679
Horowhenua District	14	57	90	172	571	36	4	21	0	0	0	965
Tararua District	328	435	379	960	611	137	43	155	27	3	0	3 078
Kapiti Coast District	66	71	259	413	499	628	116	58	3	0	0	2 113
Upper Hutt City	C	76	465	641	308	439	150	67	5	0	C	C
Porirua City	13	0	87	45	386	58	4	55	17	0	0	665
Wellington City	0	0	8	217	66	17	0	0	0	0	0	308
Lower Hutt City	0	0	10	26	0	0	38	3	0	0	0	77
Masterton District	2 133	1 794	3 880	7 214	4 927	3 156	1 211	213	23	4	2	24 557
Carterton District	1 102	325	1 731	2 279	849	714	231	97	7	0	0	7 335
South Wairarapa District	708	227	756	1 952	1 445	C	22	11	C	0	0	5 435
Region total	6 634	4 749	11 552	27 808	16 665	C	C	864	99	7	3	78 278
North Island total	48 843	41 460	79 135	161 514	88 394	53 796	16 196	3 996	810	53	34	494 231

TABLE 9.17: CONTINUED...

TERRITORIAL AUTHORITY	AGE CLASS (YEARS)											
	1-5 YEARS (HA)	6-10 YEARS (HA)	11-15 YEARS (HA)	16-20 YEARS (HA)	21-25 YEARS (HA)	26-30 YEARS (HA)	31-35 YEARS (HA)	36-40 YEARS (HA)	41-50 YEARS (HA)	51-60 YEARS (HA)	61-80 YEARS (HA)	TOTAL (HA)
NELSON & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	321	425	2 978	6 923	4 274	2 809	196	104	16	0	0	18 046
Nelson City	152	9	93	253	411	139	39	17	1	0	0	1 114
Marlborough District	741	1 325	3 863	10 691	5 785	6 331	1 056	307	137	0	0	30 236
Kaikoura District	109	17	142	527	83	6	2	39	0	0	0	925
Region total	1 323	1 776	7 076	18 394	10 553	9 285	1 293	467	154	0	0	50 321
WEST COAST WOOD SUPPLY REGION												
Buller District	445	0	54	725	C	371	C	6	0	0	0	1 886
Grey District	49	446	1 686	1 318	804	1 006	640	27	53	0	0	6 029
Westland District	718	126	535	1 742	C	116	C	32	46	0	0	3 464
Region total	1 212	572	2 275	3 785	1 194	1 493	684	65	99	0	0	11 379
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	88	336	2 166	3 656	1 460	1 454	159	143	14	3	0	9 479
Waimakariri District	156	19	542	1 351	962	244	8	0	3	0	0	3 285
Selwyn District	225	80	234	635	973	894	42	49	1	0	0	3 133
Christchurch City	122	116	293	1 613	861	382	116	45	18	0	1	3 567
Ashburton District	30	25	153	304	110	145	15	43	4	0	0	829
Mackenzie District	0	50	127	552	400	20	47	14	41	0	0	1 251
Timaru District	132	318	292	852	854	774	69	1	0	0	0	3 292
Waimate District	609	432	383	2 126	488	442	161	2	0	0	0	4 643
Region total	1 362	1 376	4 190	11 089	6 108	4 355	617	297	81	3	1	29 479
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	698	192	2 530	3 164	834	1 248	200	88	35	12	5	9 006
Queenstown-Lakes District	0	0	0	6	0	11	2	0	3	0	1	23
Central Otago District	0	5	124	461	101	72	39	63	1	0	0	866
Dunedin City	303	610	622	1 848	1 244	1 591	308	20	33	0	0	6 579
Clutha District	2 830	2 317	5 923	11 263	5 660	3 745	797	210	69	5	2	32 821
Southland District	1 694	1 214	2 787	5 452	2 991	804	246	126	28	0	0	15 342
Gore District	0	0	37	217	126	13	91	0	1	0	0	485
Invercargill City	0	28	70	71	69	46	116	66	12	5	0	483
Region total	5 525	4 366	12 093	22 482	11 025	7 530	1 799	573	182	22	8	65 605
South Island total	9 422	8 090	25 634	55 750	28 880	22 663	4 393	1 402	516	25	9	156 784
New Zealand total	58 265	49 550	104 769	217 264	117 274	76 459	20 589	5 398	1 326	78	43	651 015

**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

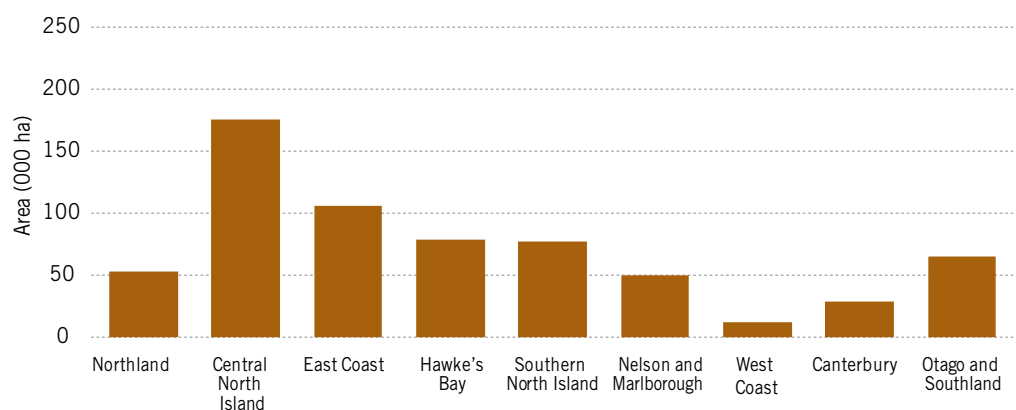


TABLE 9.18: AREA<sup>1</sup> OF RADIATA PINE UNPRUNED WITH PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

TERRITORIAL AUTHORITY	AGE CLASS (YEARS)											
	1-5 YEARS (HA)	6-10 YEARS (HA)	11-15 YEARS (HA)	16-20 YEARS (HA)	21-25 YEARS (HA)	26-30 YEARS (HA)	31-35 YEARS (HA)	36-40 YEARS (HA)	41-50 YEARS (HA)	51-60 YEARS (HA)	61-80 YEARS (HA)	TOTAL (HA)
NORTHLAND WOOD SUPPLY REGION												
Far North District	1 235	2 349	1 265	267	181	66	93	87	42	0	0	5 585
Whangarei District	0	0	0	0	1	0	0	3	0	0	0	4
Kaipara District	0	2	1	43	367	206	6	0	0	0	0	625
Auckland Council	174	668	72	365	1 452	192	0	0	0	0	0	2 923
Region total	1 409	3 019	1 338	675	2 001	464	99	90	42	0	0	9 137
CENTRAL NORTH ISLAND WOOD SUPPLY REGION												
Thames-Coromandel District	23	13	49	118	45	57	20	82	0	0	0	407
Hauraki District	0	0	0	0	0	0	0	0	0	0	0	0
Waikato District	0	0	1	6	7	0	0	0	0	4	0	18
Matamata-Piako District	0	0	0	0	0	0	0	0	0	0	0	0
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	28	23	23	0	0	0	0	0	0	74
Otorohanga District	0	5	20	5	52	0	11	0	0	0	0	93
South Waikato District	0	1	4	19	9	0	0	0	1	0	0	34
Waitomo District	0	8	218	404	152	0	7	0	0	0	0	789
Taupo District	155	164	286	391	654	758	864	1	5	0	0	3 278
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	45	142	617	518	1 123	383	15	0	0	0	0	2 843
Western Bay of Plenty District	0	1	97	99	52	38	7	0	0	0	0	294
Rotorua District	0	48	10	99	108	1	0	0	0	0	1	267
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	147	6	365	37	637	20	23	0	0	0	0	1 235
Opotiki District	0	1	19	5	1	72	13	0	0	0	0	111
Region total	370	389	1 714	1 724	2 863	1 329	960	83	6	4	1	9 443
EAST COAST WOOD SUPPLY REGION												
Gisborne District	662	39	1	142	276	173	48	32	0	0	0	1 373
Region total	662	39	1	142	276	173	48	32	0	0	0	1 373
HAWKE'S BAY WOOD SUPPLY REGION												
Wairoa District	0	5	3	385	81	0	71	0	0	0	0	545
Hastings District	207	4	16	200	375	8	0	0	7	0	0	817
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	13	0	3	26	4	15	6	4	0	0	0	71
Region total	220	9	22	611	460	23	77	4	7	0	0	1 433
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION												
New Plymouth District	C	0	6	C	0	0	0	0	0	0	0	C
Stratford District	0	0	0	0	0	0	0	0	0	0	0	0
South Taranaki District	0	0	0	0	12	3	0	2	0	0	0	17
Wanganui District	C	197	0	C	80	79	0	0	0	0	0	C
Rangitikei District	239	544	849	646	285	8	0	9	0	2	0	2 582
Manawatu District	0	1	1	0	10	0	9	0	0	0	0	21
Palmerston North City	0	0	0	2	40	0	0	0	0	0	0	42
Horowhenua District	226	233	381	232	234	0	1	0	2	30	2	1 341
Tararua District	0	9	17	124	86	25	17	6	0	0	0	284
Kapiti Coast District	0	0	0	7	3	0	0	0	0	0	0	10
Upper Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Porirua City	0	0	0	0	0	0	0	0	0	0	0	0
Wellington City	0	0	28	0	0	8	0	0	0	0	0	36
Lower Hutt City	0	0	0	0	0	10	72	0	0	0	0	82
Masterton District	18	87	67	40	42	17	6	0	0	0	0	277
Carterton District	0	0	1	7	0	3	0	0	0	0	0	11
South Wairarapa District	0	10	181	52	18	13	3	0	0	0	0	277
Region total	548	1 081	1 531	1 313	810	166	108	17	2	32	2	5 610
North Island total	3 209	4 537	4 606	4 465	6 410	2 155	1 292	226	57	36	3	26 996

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 & Marlborough Wood Supply Region												
Tasman District	24	69	165	451	306	34	165	65	22	2	0	1 303
Nelson City	0	0	0	C	0	0	C	0	0	0	0	C
Marlborough District	3	64	56	C	214	51	C	154	3	0	0	C
Kaikoura District	0	0	0	1	5	0	0	0	0	0	0	6
Region total	27	133	221	785	525	85	242	219	25	2	0	2 264
West Coast Wood Supply Region												
Buller District	0	0	0	0	0	0	0	0	0	0	0	0
Grey District	0	0	4	1	0	0	0	0	0	0	0	5
Westland District	0	0	0	0	0	0	0	4	0	0	0	4
Region total	0	0	4	1	0	0	0	4	0	0	0	9
Canterbury Wood Supply Region												
Hurunui District	C	22	110	537	226	82	62	1	C	0	0	1 514
Waimakariri District	0	2	10	110	71	21	2	8	3	3	2	232
Selwyn District	0	2	204	292	28	10	3	17	3	0	1	560
Christchurch City	0	0	17	99	C	0	C	0	1	0	0	127
Ashburton District	0	3	1	47	C	0	C	37	0	0	0	112
Mackenzie District	121	1	25	26	18	15	10	15	24	0	0	255
Timaru District	0	0	1	22	66	25	6	2	0	0	0	122
Waimate District	C	0	1	60	31	7	2	0	C	0	0	103
Region total	562	30	369	1 193	467	160	92	80	66	3	3	3 025
Otago & Southland Wood Supply Region												
Waitaki District	0	1	1	83	16	15	45	0	0	0	0	161
Queenstown-Lakes District	0	0	0	1	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	0	5	0	0	0	0	0	0	5
Clutha District	0	587	978	51	82	5	9	0	0	0	0	1 712
Southland District	110	292	144	150	83	26	15	15	61	0	0	896
Gore District	0	0	4	5	35	0	0	0	0	0	0	44
Invercargill City	0	0	5	6	0	0	0	0	0	0	0	11
Region total	110	880	1 132	299	221	46	69	15	61	0	0	2 833
South Island total	699	1 043	1 726	2 278	1 213	291	403	318	152	5	3	8 131
New Zealand total	3 908	5 580	6 332	6 743	7 623	2 446	1 695	544	209	41	6	35 127

**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

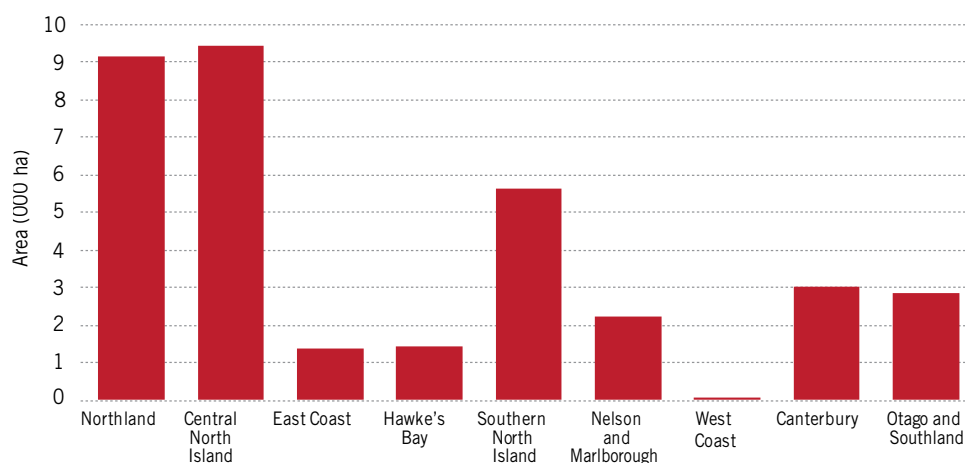


TABLE 9.19: AREA<sup>1</sup> OF RADIATA PINE UNPRUNED WITHOUT PRODUCTION THINNING BY TERRITORIAL AUTHORITY, AS AT 1 APRIL 2014

1 APRIL 2014	AGE CLASS (YEARS)											
TERRITORIAL AUTHORITY	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	12 016	5 591	4 953	4 738	2 310	5 574	1 631	607	191	9	0	37 620
Whangarei District	4 629	2 035	2 904	2 214	1 001	4 066	440	163	26	1	0	17 479
Kaipara District	4 248	1 208	2 946	5 357	3 350	5 223	398	79	77	2	2	22 890
Auckland Council	3 055	3 031	6 626	5 243	1 833	594	324	60	9	3	9	20 787
Region total	23 948	11 865	17 429	17 552	8 494	15 457	2 793	909	303	15	11	98 776
CENTRAL NORTH ISLAND WOOD SUPPLY REGION												
Thames-Coromandel District	3 324	3 311	2 157	1 685	1 527	337	84	62	25	20	16	12 548
Hauraki District	274	C	209	149	359	C	25	5	1	0	0	1 330
Waikato District	1 738	593	1 375	2 537	2 016	106	174	35	17	13	47	8 651
Matamata-Piako District	126	248	31	13	42	41	44	14	2	0	0	561
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	70	0	49	96	122	6	4	1	0	0	2	350
Otorohanga District	40	41	564	645	289	113	3	0	5	0	0	1 700
South Waikato District	5 599	8 844	14 673	14 841	12 182	1 424	166	18	15	0	75	57 837
Waitomo District	1 252	2 853	1 737	2 135	274	161	148	12	0	0	0	8 572
Taupo District	13 535	6 734	17 468	14 032	8 204	1 474	1 510	42	44	25	4	63 072
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Ruapehu District	4 972	1 514	1 793	12 092	1 584	2 799	497	258	1	0	0	25 510
Western Bay of Plenty District	901	1 752	1 865	1 100	1 233	216	50	3	0	0	3	7 123
Rotorua District	3 704	4 519	7 101	2 358	2 413	305	74	13	35	0	8	20 530
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	15 840	C	14 593	14 371	4 963	C	121	29	37	31	6	62 273
Opotiki District	2 568	901	743	642	504	2 432	1 526	18	0	0	0	9 334
Region total	53 943	42 929	64 358	66 696	35 712	10 385	4 426	510	182	89	161	279 391
EAST COAST WOOD SUPPLY REGION												
Gisborne District	7 289	4 067	8 507	8 368	6 146	2 448	1 937	864	204	3	6	39 839
Region total	7 289	4 067	8 507	8 368	6 146	2 448	1 937	864	204	3	6	39 839
HAWKE'S BAY WOOD SUPPLY REGION												
Wairoa District	1 278	2 275	1 752	2 580	208	1 098	C	3	C	C	0	9 854
Hastings District	5 293	5 504	6 070	5 313	1 317	265	216	52	70	12	10	24 122
Napier City	0	0	0	1	0	6	0	0	0	0	0	7
Central Hawke's Bay District	537	26	420	2 387	424	200	C	39	C	C	14	4 227
Region total	7 108	7 805	8 242	10 281	1 949	1 569	992	94	121	25	24	38 210
SOUTHERN NORTH ISLAND WOOD SUPPLY REGION												
New Plymouth District	C	0	103	C	156	82	18	30	5	0	0	C
Stratford District	0	17	155	100	134	9	8	2	0	0	0	425
South Taranaki District	C	48	352	985	412	194	83	11	29	1	C	C
Wanganui District	C	640	1 482	C	310	24	85	38	10	0	9	C
Rangitikei District	314	97	962	3 072	526	100	102	118	152	57	0	5 500
Manawatu District	545	10	516	447	445	109	36	48	19	0	5	2 180
Palmerston North City	171	322	23	69	58	41	80	111	17	0	0	892
Horowhenua District	132	459	366	328	301	60	73	44	12	0	2	1 777
Tararua District	1 221	395	1 595	4 789	710	346	454	87	31	8	7	9 643
Kapiti Coast District	0	12	134	85	30	50	8	22	1	0	0	342
Upper Hutt City	C	492	434	204	183	182	76	55	31	0		C
Porirua City	0	0	25	25	264	65	0	0	0	0	0	379
Wellington City	C	0	0	C	35	0	0	0	0	0	C	58
Lower Hutt City	0	0	0	28	0	6	8	16	0	0	0	58
Masterton District	178	303	988	1 657	1 322	604	287	151	228	42	3	5 763
Carterton District	202	191	804	826	389	223	78	99	87	2	1	2 902
South Wairarapa District	47	111	544	544	271	267	164	69	30	1	1	2 049
Region total	4 712	3 097	8 483	15 235	5 546	2 362	1 560	901	652	111	37	42 696
North Island total	97 000	69 763	107 019	118 132	57 847	32 221	11 708	3 278	1 462	243	239	498 912



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 & MARLBOROUGH WOOD SUPPLY REGION												
Tasman District	13 030	13 359	10 584	8 558	6 290	1 640	548	228	200	17	13	54 467
Nelson City	1 876	1 657	1 405	C	726	120	C	3	12	0	C	C
Marlborough District	7 752	5 707	3 920	C	2 331	2 068	C	178	159	25	C	C
Kaikoura District	0	0	36	46	3	25	14	8	1	2	0	135
Region total	22 658	20 723	15 945	18 189	9 350	3 853	C	417	372	44	C	92 905
WEST COAST WOOD SUPPLY REGION												
Buller District	427	153	65	153	C	43	C	8	4	0	0	943
Grey District	1 126	2 140	723	451	34	179	523	117	95	6	0	5 394
Westland District	413	1 358	535	1 107	C	86	C	342	38	1	0	4 030
Region total	1 966	3 651	1 323	1 711	159	308	638	467	137	7	0	10 367
CANTERBURY WOOD SUPPLY REGION												
Hurunui District	C	2 674	5 691	5 799	2 586	1 660	128	48	C	9	6	20 758
Waimakariri District	156	610	1 473	2 377	1 542	298	C	32	15	C	0	6 595
Selwyn District	C	C	545	1 059	662	254	C	135	C	C	C	3 786
Christchurch City	260	119	157	678	C	199	C	83	7	C	C	1 866
Ashburton District	299	253	297	300	C	73	C	12	8	5	15	1 353
Mackenzie District	25	20	55	162	105	9	13	5	51	2	0	447
Timaru District	C	C	182	673	417	172	13	3	C	0	C	1 564
Waimate District	C	98	254	653	174	324	313	17	C	34	5	2 133
Region total	3 805	4 098	8 654	11 701	5 779	2 989	C	335	135	90	C	38 502
OTAGO & SOUTHLAND WOOD SUPPLY REGION												
Waitaki District	458	312	636	759	515	358	76	50	8	27	2	3 201
Queenstown-Lakes District	0	0	13	26	13	13	13	0	1	20	6	105
Central Otago District	0	0	151	175	242	43	40	4	8	3	32	698
Dunedin City	3 258	313	101	328	273	355	91	57	0	13	1	4 790
Clutha District	2 639	4 788	5 616	3 136	1 608	543	589	159	33	10	2	19 123
Southland District	2 105	2 651	4 427	5 829	2 061	1 455	1 227	208	132	16	0	20 111
Gore District	6	0	180	341	312	18	29	17	20	1	0	924
Invercargill City	0	2	4	42	20	12	27	0	4	0	0	111
Region total	8 466	8 066	11 128	10 636	5 044	2 797	2 092	495	206	90	43	49 063
South Island total	36 895	36 538	37 050	42 237	20 332	9 947	4 937	1 714	850	231	106	190 837
New Zealand total	133 895	106 301	144 069	160 369	78 179	42 168	16 645	4 992	2 312	474	345	689 749

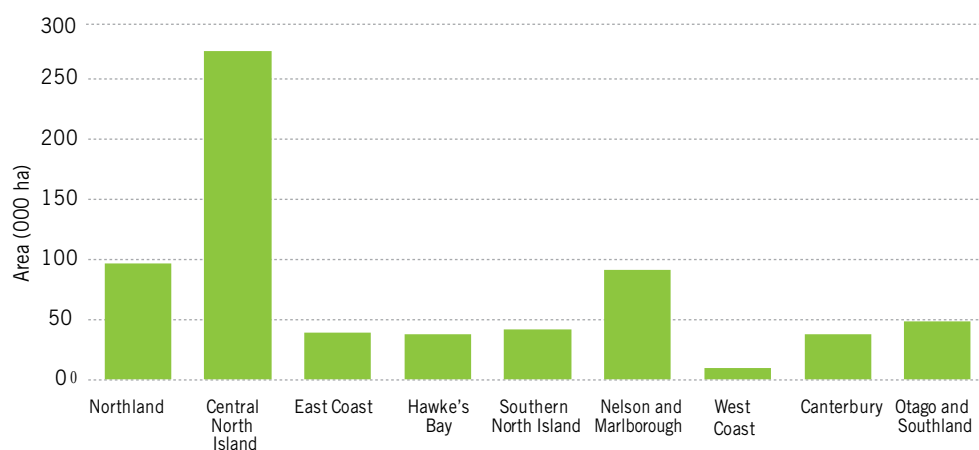
**Note**

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 2014 if it was planted in the preceding 12-month period, that is, between 1 April 2013 and 31 March 2014.

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

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

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

**Land cover types prior to afforestation:**

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

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

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

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

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

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

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

**Rotation number:**

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

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

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

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

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

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

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

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

The radiata pine tending regime categories are:

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

The Douglas-fir tending regime categories are:

- with production thinning;
- without production thinning.

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

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

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

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

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

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

## APPENDIX 2: HISTORICAL STANDING VOLUME COMPARING YIELD TABLE SETS

TIME SERIES OF STANDING VOLUME UNDER 1995 & 2009 YIELD TABLES<sup>1</sup>

YEAR OF DATA AS AT 1 APRIL	STANDING VOLUME (000M <sup>3</sup> ) 1995 YIELD TABLE	STANDING VOLUME (000M <sup>3</sup> ) 2009 YIELD TABLE	DIFFERENCE
1995	310 601	263 548	- 47 053
1996	320 508	273 120	- 47 388
1997	333 805	286 558	- 47 247
1998	342 126	295 887	- 46 239
1999	355 480	310 926	- 44 554
2000	369 882	324 132	- 45 750
2001	384 531	336 004	- 48 527
2002	392 841	343 766	- 49 076
2003	400 745	351 504	- 49 240
2004	401 365	351 815	- 49 550
2005	407 802	359 048	- 48 753
2006	421 374	372 436	- 48 937
2007	437 101	388 810	- 48 291
2008	449 078	400 737	- 48 341
2009	460 034	417 905	- 42 129
2010	470 205	430 095	- 40 111
2011	482 868	445 183	- 37 685
2012	488 493	454 829	- 33 664
2013	512 137	481 316	- 30 822
2014	518 923	493 723	- 25 201

Note

1. Until 2013 standing volume in the NEFD was calculated using the 1995 yield tables. From 2014 onwards standing volume will be calculated using the 2009 yield tables. The 2009 yield tables will generate a lower standing volume based on the same area due to differences in methodology - in the 2009 round of Wood Availability forecasting more attention was paid to events such as wind throw and crop failure resulting in lower realised volumes.

## APPENDIX 3: 2013 NEFD QUESTIONNAIRE

**SECTION A: CONTACT DETAILS**

Work through the questions on this page to see which sections you need to complete.

**A1** Check the front cover of the survey. Are your contact details correct?

Please add or correct any details you need to.

We use this information to know who to contact if we have any queries about the information you have provided.

Contact name Please include your first name and surname	
Company name	
Contact address	
Contact phone number	
Email address	

**A2** Do you, or the company you may work for, own the forest you are going to answer the survey about?

Please tick 'Yes' if you part-own the forest, or are part of a joint venture.

<input type="checkbox"/>	Yes	▶	Go to	<b>A4</b>
<input type="checkbox"/>	No	▶	Go to	<b>A3</b>

**A3** Please enter the details of the forest owner you are completing this survey for.

We use this information to make sure we are not double counting forests.

Forest owner's name	
Company name	
Contact address	
Contact phone number	
Email address	

**A4** Tick one category only. Which best describes the ownership of the majority of this forest?

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

## SECTION A: CONTACT DETAILS *continued*

**A5** Between 1 April 2013 and 31 March 2014, have any of the following been done to the forest, or forest land, you are completing this survey for?

Purchased, leased or sold or handed back any forest or forest land.

Exclude: Land you have sold or handed back but still retain rights to the forest

- ☐ Yes    ►    Go to **Section B**    we will contact you to update our records
- ☐ No    ►    Go to **A6**

**A6** Is this total forest area over 1,000 hectares?

- ☐ Yes    ►    Go to **Section B**
- ☐ No    ►    Go to **A7**

**A7** Between 1 April 2013 and 31 March 2014, have any of the following been done to the forest, or forest land, you are completing this survey for?

Planting, Harvesting, Pruning, Thinning, or damage from fire or wind.

- ☐ Yes    ►    Go to **Section B**
- ☐ No    ►    Go to **A8**

**A8** Because there have been no changes to your forest between 1 April 2013 and 31 March 2014, you just need to do three things:

- check any pre-printed pages you have received are correct  
(If there are errors on your pre-printed pages, please make the corrections on the pages and send them back with your survey, or use the email address or 0800 number below to contact us).
- tick the box below
- complete & sign Section D and return your form.

Alternatively, you can email NEFD@mpi.govt.nz or phone 0800 395 495 providing all the details on this page (including your answer to Section D).

- ☐ There have been no changes to my forest.    ►    Go to **Section D**



## SECTION B: AREA BY AGE DATA AS AT 1 APRIL 2014

### Supplying the data electronically

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

### Pre-printed pages

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

The pre-printed pages will contain data from your previous NEFD survey.

- If you have forest area that is not included in your pre-printed pages you need to fill in questions **B2** to **B7** with the additional forest information.

- ☐ **Yes** ► Check the pre-printed data on each page. If there are errors, correct them.  
If the data is correct, tick the 'no changes' circle on each of the pre-printed pages,  
then go to **Section C**
- ☐ **No** ► Answer questions **B2** to **B7**

## SECTION B: continued AREA BY AGE DATA AS AT 1 APRIL 2014

### Instructions for questions B2 to B7

**B2** You need a copy of questions **B2** to **B7** for each forest area that has a different:

- Territorial Authority where the forest is located
- Rotation number (either first or second and subsequent rotations)
- Tending regime
- Species.

For more copies of **B2** to **B7** you can either:

- Make a photocopy of the pages provided containing questions B2 to B7.
- Contact survey support on 0800 395 495 or email NEFD@mpi.govt.nz.

Write the Territorial Authority where the forest is located in the box below:

Note: A Territorial Authority is not a Regional Council boundary. Please see the attached supplement 'Map of wood supply region boundaries and territorial authority boundaries' for more information.

**B3** Tick one category only. Which rotation is this?

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

**B4** Tick one category only. Which species is this information for?

- ☐ Radiata pine      ► Go to **B5**
- ☐ Douglas-fir      ► Go to **B6**
- ☐ Cypress species  
includes macrocarpa, lusitanica and other cypress species
- ☐ Other softwoods  
includes conifers e.g. pine (excluding radiata pine), fir (excluding douglas-fir), larch or redwood
- ☐ Eucalypt  
includes all eucalypt species
- ☐ Other hardwoods  
includes broad-leaved trees e.g. wattle, acacia (including Australian blackwood), walnut, oak, poplar, willow, paulownia, birch, alder or elm

Go to **B7**

## SECTION B: continued AREA BY AGE DATA AS AT 1 APRIL 2014

### Tending regime

**Intended tending regime:** for young stands that you intend to prune at a later date, please include as “pruned”.

**Production thinning:** Where thinnings are sold, e.g. for posts or chipwood. Don't include thinning to waste.

**B5** Tick an answer in each category.

What is your radiata pine tending regime or intended tending regime for this forest?

Pruning regime

☐ pruned

☐ unpruned

Thinning regime

☐ production thinned

☐ no production thinning

Thank you now go to



**B7**

**B6** Tick one category only. What is your douglas-fir tending regime or intended tending regime for this forest?

☐ production thinned

☐ no production thinning

### Area by age information

**B7** As at 1 April 2014, give the net stocked area in hectares of trees of each age.

Hectares may be given to one decimal point.

Make sure you write the 'Total Net Stocked Area' in the highlighted box at the bottom of this table once it is complete.

year planted	age in 2014	net stocked area (ha)	year planted	age in 2014	net stocked area (ha)	year planted	age in 2014	net stocked area (ha)	year planted	age in 2014	net stocked area (ha)
2013	1		1992	22		1971	43		1950	64	
2012	2		1991	23		1970	44		1949	65	
2011	3		1990	24		1969	45		1948	66	
2010	4		1989	25		1968	46		1947	67	
2009	5		1988	26		1967	47		1946	68	
2008	6		1987	27		1966	48		1945	69	
2007	7		1986	28		1965	49		1944	70	
2006	8		1985	29		1964	50		1943	71	
2005	9		1984	30		1963	51		1942	72	
2004	10		1983	31		1962	52		1941	73	
2003	11		1982	32		1961	53		1940	74	
2002	12		1981	33		1960	54		1939	75	
2001	13		1980	34		1959	55		1938	76	
2000	14		1979	35		1958	56		1937	77	
1999	15		1978	36		1957	57		1936	78	
1998	16		1977	37		1956	58		1935	79	
1997	17		1976	38		1955	59		1934 or earlier	80+	
1996	18		1975	39		1954	60		Total Net stocked area		
1995	19		1974	40		1953	61				
1994	20		1973	41		1952	62				
1993	21		1972	42		1951	63				

## SECTION C: PLANTING AND HARVESTING

### Planting

**C1** Does any of the forest area you are answering this survey about cover multiple Territorial Authorities?

Note: A Territorial Authority is not a Regional Council boundary. Please see map included with your survey for more information.

- ☐ Yes ► You need to answer questions C2 to C14 for each TA your forest is in
- ☐ No ► Go to **C2**

For more copies of **C2** to **C14** you can either:

- Make a photocopy of the pages provided containing questions C2 to C14
- Contact survey support on 0800 395 495 or email NEFD@mpi.govt.nz.

**C2** Between 1 April 2013 and 31 March 2014, was there any planting in this forest?

- ☐ Yes ► Go to **C3**
- ☐ No ► Go to **C6**

**C3** Write the Territorial Authority where the planting took place in the box below:

Please see the attached supplement 'Map of wood supply region boundaries and territorial authority boundaries' for more information.

**C4** Complete the table below with the new and replanted area for the year ended 31 December 2013.

	New Planted area for year ended 31 December 2013 Give the area planted on a site not already in use for growing planted production forest (i.e. first rotation)	Area replanted for year ended 31 December 2013 Give the area of forest which was replanted following harvest
Radiata pine	<input type="text"/> ha	<input type="text"/> ha
Douglas-fir	<input type="text"/> ha	<input type="text"/> ha
Cypress species include: macrocarpa, lusitanica and all other cypress species	<input type="text"/> ha	<input type="text"/> ha
Other softwoods include: conifers e.g. pine, fir, larch and redwood exclude: radiata pine, douglas-fir	<input type="text"/> ha	<input type="text"/> ha
Eucalypt species include: all eucalypt species	<input type="text"/> ha	<input type="text"/> ha
Other hardwoods include: broad-leaved trees e.g. wattle, acacia (including Australian blackwood) walnut, oak, poplar, willow, paulownia, birch, alder and elm	<input type="text"/> ha	<input type="text"/> ha
<b>TOTAL</b>	<input type="text"/> ha	<input type="text"/> ha

**C5** Write the number from the 'Total new planted area' (highlighted dark blue) in **C4** above into the 'Total' box in this question, then separate it into categories of pasture and vegetation.

Improved pasture land that has been fertilised and contains improved pasture species	<input type="text"/> ha
Unimproved pasture land not fertilised, with no improved pasture species sown	<input type="text"/> ha
Woody vegetation land predominantly covered in bracken gorse, manuka, kanuka, or other woody species	<input type="text"/> ha
<b>TOTAL</b> – note, this total should equal the 'new planted area' in question <b>C4</b>	<input type="text"/> ha

## SECTION C: continued PLANTING AND HARVESTING

### Harvesting

**C6** Only thinking about the forest area you are answering these questions for, between 1 April 2013 and 31 March 2014, did you carry out any harvesting?

- ☐ Yes ► Go to **C7**
- ☐ No ► Go to **C10**

**C7** Write the Territorial Authority where the harvesting took place in the box below:

Note: A Territorial Authority is not a Regional Council boundary. Please see 'Map of wood supply region boundaries and territorial authority boundaries' included with your survey for more information.

☐ Tick here if it is the same Territorial Authority as the planting in question **C3**

**C8** For the year ended 31 March 2014, please give the following harvesting details:

Note that 1 tonne = about 1m<sup>3</sup>

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

**C9** Write the number from the radiata pine clear felled volume (highlighted dark blue) in **C8** above into the 'Total recovered' box below. Then separate it into log grade sold.

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

Volume (recovered) sold as

Pruned Logs	Unpruned sawlogs	Pulp/chip logs	Total recovered
<input type="text"/> m <sup>3</sup>	<input type="text"/> m <sup>3</sup>	<input type="text"/> m <sup>3</sup>	<input type="text"/> m <sup>3</sup>

**SECTION C: continued PLANTING AND HARVESTING**

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

**C10** Between 1 April 2010 and 31 March 2014 what area of harvested land was awaiting replanting?

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

Exclude: land handed back to landowner

 ha

**C11** Between 1 April 2010 and 31 March 2014 what area of harvested land was awaiting a land use decision?

Include: area clear felled for which a decision on whether to replant or convert has not yet been made

Exclude: area given in question **C10** and land handed back to landowner

 ha

**C12** Between 1 April 2013 and 31 March 2014, has this forest converted any of its land to a non-forest land use?

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

Exclude: land handed back to landowner

☐ Yes   ►   Go to **C13**

☐ No   ►   Go to **D1**

**C13** Between 1 April 2013 and 31 March 2014, what area of harvested forest was converted to a non-forest land use?

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

Exclude: immature forests or forests less than age 20

 ha

**C14** Between 1 April 2013 and 31 March 2014, what area of immature forest was converted to a non-forest land use?

Include:

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

Exclude: mature forests that you talked about in question **C13**

 ha





## FOREST AREA RECONCILIATION

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

### 2013 Information

This information can be found in your previous NEFD return

Net stocked area as at 1 April 2013		<input type="text"/>	ha
Area awaiting replanting on 31 March 2013	+	<input type="text"/>	ha
Area awaiting a land use decision on 31 March 2013	+	<input type="text"/>	ha
<b>TOTAL forest area as at 1 April 2013</b>	<b>=</b>	<input type="text"/>	<b>ha</b>

### 2014 Information

This information can be found in this questionnaire

Forest area acquired	+	<input type="text"/>	ha	
New planted area (first rotation)	+	<input type="text"/>	ha	<b>C4</b>
Forest area sold	-	<input type="text"/>	ha	
Forest area another party now responsible for (for example, area handed back)	-	<input type="text"/>	ha	
Clear felled area now converted to a non-forest land use	-	<input type="text"/>	ha	<b>C13</b>
Immature forest cleared for conversion to a non-forest land use	-	<input type="text"/>	ha	<b>C14</b>
Re-mapping adjustment	+ / -	<input type="text"/>	ha	<b>Pls circle + or -</b>
<b>Net stocked area as at 1 April 2014</b>	<b>=</b>	<input type="text"/>	<b>ha</b>	<b>B7</b>
Area awaiting replanting on 31 March 2014	+	<input type="text"/>	ha	<b>C10</b>
Area awaiting land use decision on 31 March 2014	+	<input type="text"/>	ha	<b>C11</b>
<b>TOTAL forest area as at 1 April 2014</b>	<b>=</b>	<input type="text"/>	<b>ha</b>	

This is the end of the questionnaire.

### Returning the survey

Make sure you have answered **Section D**

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

Please return the survey to:

#### NEFD Survey Support

email: NEFD@mpi.govt.nz

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

tel: 0800 395 495

fax: (04) 894 0746

### THANK YOU FOR YOUR TIME AND EFFORT

A copy of the complete results from last year's NEFD survey is available free of charge on the Ministry's website:  
<http://www.mpi.govt.nz/news-resources/statistics-forecasting/statistical-publications/national-exotic-forest-description>  
 or by emailing: [brand@mpi.govt.nz](mailto:brand@mpi.govt.nz)

FOR ASSISTANCE PLEASE

> refer to the guide notes

> contact survey support on 0800 395 495

> email [NEFD@mpi.govt.nz](mailto:NEFD@mpi.govt.nz)

## APPENDIX 4: NEW PLANTING IMPUTATION METHODOLOGY

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

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

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

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

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

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

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

### ASSUMPTIONS

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

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

## APPENDIX 5: THE NEFD STEERING COMMITTEE

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

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

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

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

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

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

## APPENDIX 7: REFERENCES

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

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

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

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

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

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

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

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

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

Statistics New Zealand (2009) *2007 Agricultural Production Census*. [http://www.stats.govt.nz/browse\\_for\\_stats/industry\\_sectors/agriculture/agriculturalproduction\\_hotpjun07final.aspx](http://www.stats.govt.nz/browse_for_stats/industry_sectors/agriculture/agriculturalproduction_hotpjun07final.aspx)

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

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



## APPENDIX 8: FURTHER INFORMATION

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

**Resource Information and Analysis**

**Ministry for Primary Industries**

**PO Box 2526**

**Wellington 6140**

**Telephone: 0800 00 83 33**

**Facsimile: 64-4-894 0741**

**Email: [stats\\_info@mpi.govt.nz](mailto:stats_info@mpi.govt.nz)**

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

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

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

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