

National Exotic Forest Description

as at 1 April 2019



New Zealand
FARM FORESTRY ASSOCIATION



Te Uru Rākau
Forestry New Zealand

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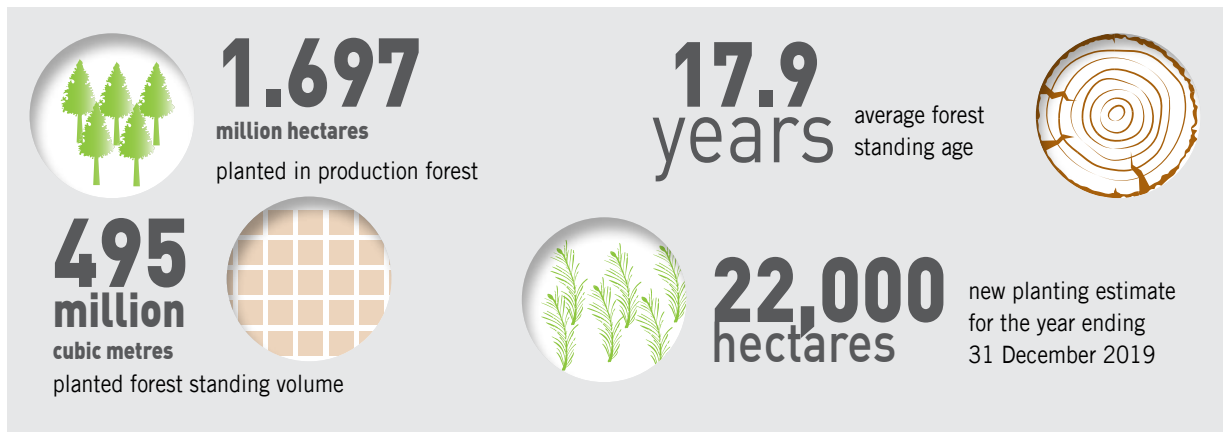
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Key facts as at 1 April 2019



New Zealand's net stocked planted production forest covered an estimated 1.697 million hectares as at 1 April 2019.

The total planted forest standing volume was estimated to be 495 million cubic metres with an average age (area weighted) of 17.9 years.

The provisional new planting estimate for the year ending 31 December 2019 is 22,000 hectares. This number may be revised in the 2020 NEFD.

Table 1 provides key national forestry statistics as at 1 April 2019, as well as the statistics for 2017 and 2018 for comparison. Note that the previously published 2018 forest area and standing volume statistics have been revised due to updated information.

The distribution of the forest area by annual age class is shown in Figure 1. The decrease in area as age increases beyond 28 years indicates harvesting. Of particular note is the large area of forest between 20 to 27 years old, planted between 1992 and 1999. This forest has begun reaching harvest age.

Figure 1: Forest area by annual age class¹



Note

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

Table 1: National exotic forest estate statistics

Area and standing volume statistics	As at 1 April 2017	As at 1 April 2018 published ⁴	As at 1 April 2018 revised ⁷	As at 1 April 2019
Forest Area				
Net stocked area (ha)	1,706,429	1,725,476	1,704,494	1,696,584
Harvested area awaiting restocking (ha) ¹	48,470	50,072	50,072	51,609
Total forest area	1,754,899	1,775,548	1,754,566	1,748,193
Growth characteristics				
Standing volume (000 m ³)	472,715	491,462	482,511	494,618
Average standing volume (m ³ /ha)	277	285	283	292
Area-weighted average age (years)	17.39	17.63	17.63	17.91
Area by species²				
Radiata pine (ha)	1,535,510	1,551,985	1,532,444	1,525,711
Douglas-fir (ha)	103,726	104,992	104,258	103,410
Cypress species (ha)	9,855	9,965	9,928	9,825
Other softwoods (ha)	22,539	23,415	23,378	23,381
Eucalypts (ha)	22,307	22,777	22,148	21,777
Other hardwoods (ha)	12,492	12,343	12,339	12,481
Radiata pine area by tending regime				
Pruned with production thinning (ha)	154,427	148,191	145,859	140,318
Pruned without production thinning (ha)	595,958	576,195	574,564	547,042
Unpruned with production thinning (ha)	53,844	51,716	51,664	50,733
Unpruned without production thinning (ha)	731,282	775,884	760,358	787,617
Planting statistics				
	Year ended 31 December 2016	Year ended 31 December 2017p	Year ended 31 December 2017r	Year ended 31 December 2018
New planting³				
Total estimated new planting (ha)	2,500	6,000	6,000	7,000
Restocking (ha)	40,610	36,616	36,616	41,073
Harvesting statistics⁵				
	Year ended 31 March 2017	Year ended 31 March 2018 p	Year ended 31 March 2018 r	Year ended 31 March 2019
Harvesting				
Estimated planted forest roundwood removal (000 m ³) ⁶	30,650	36,085	34,442	36,404
Average harvest age – radiata pine (years)	28.4	28.7	28.7	29.1

Notes

1. 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.
2. Individual entries may not add to totals due to rounding. Detailed breakdowns can be found in the Forest area by age class and wood supply region section, page 22.
3. The forestry statistics released in this report, and in particular, new planting estimates, may differ from those produced in the Agricultural Production Survey by Statistics New Zealand. These surveys use different survey frames and designs. See Appendix 5 for the method used to estimate new planting for the NEFD.
4. The 2018 survey sought data from owners with 40 hectares of forest or more.
5. All standing and harvest volumes are reported as recoverable volumes (see Appendix 1).
6. Estimate from the annual roundwood removal statistics.
7. The net stocked area for 2018 has been revised following updated returns from respondents and corrections of data issues.

Overview of the NEFD

What is the NEFD?

The National Exotic Forest Description (NEFD) is a Tier 1 Statistic¹ with the purpose of maintaining an authoritative, high quality database of New Zealand's production forests. It has been published annually since 1985 on New Zealand's exotic planted production forest estate (i.e. exotic forest planted with the primary intention of producing wood or wood fibre).

What does the NEFD report on?

This report provides information that describes New Zealand's planted production forests. It consists of summarised statistics on:

- exotic planted production forest area by age class and territorial authority for key exotic species. For radiata pine, the area by age class tables are also provided by silviculture regime;
- standing volume (see Appendix 1);
- national harvesting volume estimates;
- planting estimates for forests larger than 40 hectares; and
- forest ownership for forests larger than 40 hectares.

Who participates in the NEFD?

The NEFD surveys known forest owners and managers with at least 40 hectares of planted exotic production forest. The survey is run on a two-yearly cycle, where all known forest owners with 40 or more hectares of forest are surveyed one year (census), and the next year only owners with more than 1,000 hectares (sample).

A sample survey was run in 2019. Questionnaires were sent to all known forest owners and managers with at least 1,000 hectares of planted production forest. Around 110 forests were included in the survey, with an achieved area weighted response rate of 95 percent.

Information on forests smaller than 40 hectares

The area for owners with less than 40 hectares is estimated using the 2004 AgriQuality Small Forest Growers (<40 ha) Survey, an imputation based on new planting from 1992-2006, and forests previously surveyed in the NEFD that have dropped below the 40 hectare cut off. The estimate is used because of limitations and practicalities of surveying the large numbers of small growers. More information on the methods used for these estimates and the accuracy constraints are in Appendix 5.

Reliability of data

The reliability of data decreases as forest sizes reduce. Forest owners of larger forests (1,000 or more hectares) generally have the systems to provide higher quality data compared to those with small forestry blocks. Work to improve the reliability of the NEFD data is currently being commissioned. Resulting improvements to the data will be published in future NEFD reports.

Table 2: Survey frequency and data quality by forest size

Forest ownership size (hectares)	Survey Frequency	Data quality
1000ha or more	Annually	Good
999ha to 40ha	Every two years	Medium
Below 40ha	Infrequently	Low

For a detailed description of the methodology employed to collect the data, ensure reliability and to calculate imputations, please refer to Appendix 5.

Other sources of information

In addition to the data collected in the surveys, the NEFD uses other Government data sources where appropriate. For example, Emission Trading Scheme area and species data can be used instead of surveying with owner permission, and log and roundwood data collected by MPI provides a comparison for harvest volumes. For further information, please refer to the NEFD technical document (Appendix 5). In addition, roundwood removal data is validated against Forest Growers Levy data.

Who uses the NEFD?

The data collected in the NEFD is used to inform government policy, 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.

Governance of the NEFD

Collection and publishing of 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. A full list of this committee can be found in Appendix 3.

¹ Tier 1 statistics are the most important statistics for New Zealand, essential to understand how well New Zealand is performing and to inform critical decisions. For more information, see: www.stats.govt.nz/tier1-statistics.aspx

What are New Zealand's wood supply regions?

The NEFD groups the sixty-six District and City Councils within New Zealand into nine wood supply regions. These regions have 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, West Coast, Canterbury, and Otago and Southland (see Figure 2).

What planting and harvesting information is collected?

Planting data is collected as at 31 December² on the area of replanting, afforestation, and land cover before afforestation. A supplementary survey of large forest owners and known afforesters is run at the end of a survey period to provide a provisional estimate of afforestation to the current year. In addition, the NEFD survey collects some data on harvesting from forests larger than 40 hectares including the average age of clear-felled radiata pine. NEFD harvesting information is combined with other MPI data sources to provide national harvest estimates.

Yield tables and Wood Availability Forecasts

Yield tables are produced periodically, based on data provided by forest owners and managers of larger forests, as part of the Wood Availability Forecasts.

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 recoverable volume by 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.

Yield tables and Wood Availability Forecasts for all regions and New Zealand are available on the Te Uru Rākau website (see below).

Online resources

An electronic copy of this report is available on the New Zealand Ministry for Primary Industries website: <https://www.teururakau.govt.nz/news-and-resources/open-data-and-forecasting/forestry/new-zealands-forests/> The Te Uru Rākau website also has electronic copies of:

- the tables from the report;
- report and tables from the Wood Availability Forecasts; and
- Yield tables.

For specialised requests please contact stats_info@mpi.govt.nz. For reasons of confidentiality, data on the resources of individual forest growers will not be released without the prior written consent of the forest owner(s) concerned. Any other outputs will have standard confidentiality rules applied.

² December 31 is used as the year end as planting does not occur in January to March.

Area, Species Distribution, Standing Volume and Ownership of plantation forests in New Zealand

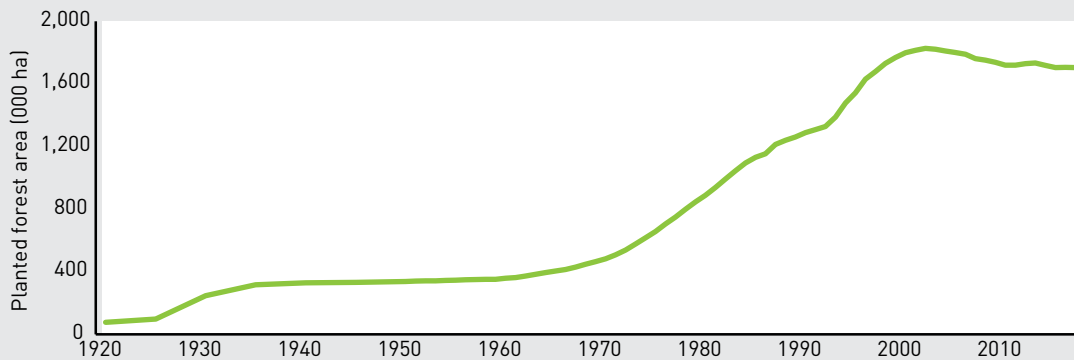
Area

As at 1 April 2019, the total net stocked area of planted forest was estimated to be 1.697 million hectares (Figure 3). Including the area of land currently awaiting replanting after harvesting (51,609 hectares), makes the estimated total forest area 1.75 million hectares.

The 2018 net stocked forest area has been revised down from 1.725 million hectares to 1.704 million hectares due to new information including updated returns from respondents and amendments to data. Further details can be found in the NEFD online tables.

The area reported for 2019 was a decrease of 7,910 hectares (0.5 percent) from the revised 2018 net stocked area of 1.704 million hectares. Year-on-year changes in the net stocked area can be caused by new information, updated returns from respondents, and changes in land use decisions by forest land owners.

Figure 3: Changes in planted production forest area in New Zealand



Note

1. Net stocked area is displayed in the Figure, area awaiting restocking is not included. For total production forest area, see Table 3.

Table 3: Total Forest Area (hectares), as at 1 April

	2012	2013	2014	2015	2016	2017	2018r	2019
Area awaiting replanting	62,063	51,869	44,642	47,173	50,491	48,470	50,072	51,609
Net stocked area	1,720,839	1,728,499	1,733,432	1,717,550	1,704,747	1,706,429	1,704,494	1,696,584
Total forest area	1,782,902	1,780,368	1,778,074	1,764,723	1,755,238	1,754,899	1,754,566	1,748,193

The estimated known area of Radiata pine decreased by 6,733 hectares between 2018 and 2019. The decrease was due to remapping of existing forestry (including from changes in ownership), fire damage, and the correction of anomalies in survey responses. Douglas-fir area decreased by 848 hectares between 2018 and 2019. Other softwoods and other hardwoods showed small increases, while all other cypress and eucalypts showed minor decreases, consistent with year-on-year variation.

Table 4: Forest area by annual age class, as at 1 April 2019

Age	Area (ha)	Age	Area (ha)	Age	Area (ha)
1	40,686	29	17,223	57	270
2	41,092	30	15,629	58	185
3	41,713	31	11,199	59	541
4	43,055	32	12,196	60	175
5	44,200	33	13,055	61	160
6	47,705	34	13,787	62	127
7	59,674	35	11,838	63	121
8	54,559	36	8,795	64	61
9	40,898	37	6,538	65	71
10	35,249	38	6,346	66	97
11	34,404	39	5,561	67	96
12	35,430	40	4,191	68	31
13	32,830	41	4,938	69	369
14	37,793	42	2,874	70	72
15	46,661	43	2,244	71	54
16	55,929	44	2,395	72	53
17	58,836	45	2,143	73	17
18	64,513	46	1,303	74	37
19	64,629	47	1,029	75	62
20	65,533	48	693	76	9
21	73,233	49	1,195	77	17
22	84,047	50	925	78	10
23	100,846	51	724	79	159
24	91,047	52	314	80+	638
25	107,201	53	507		
26	70,420	54	449		
27	51,639	55	781		
28	20,268	56	193		

Note: Net stocked planted production forest area

Area Distribution by wood supply region

Figure 4: Distribution of forest area by wood supply region, as at 1 April 2019

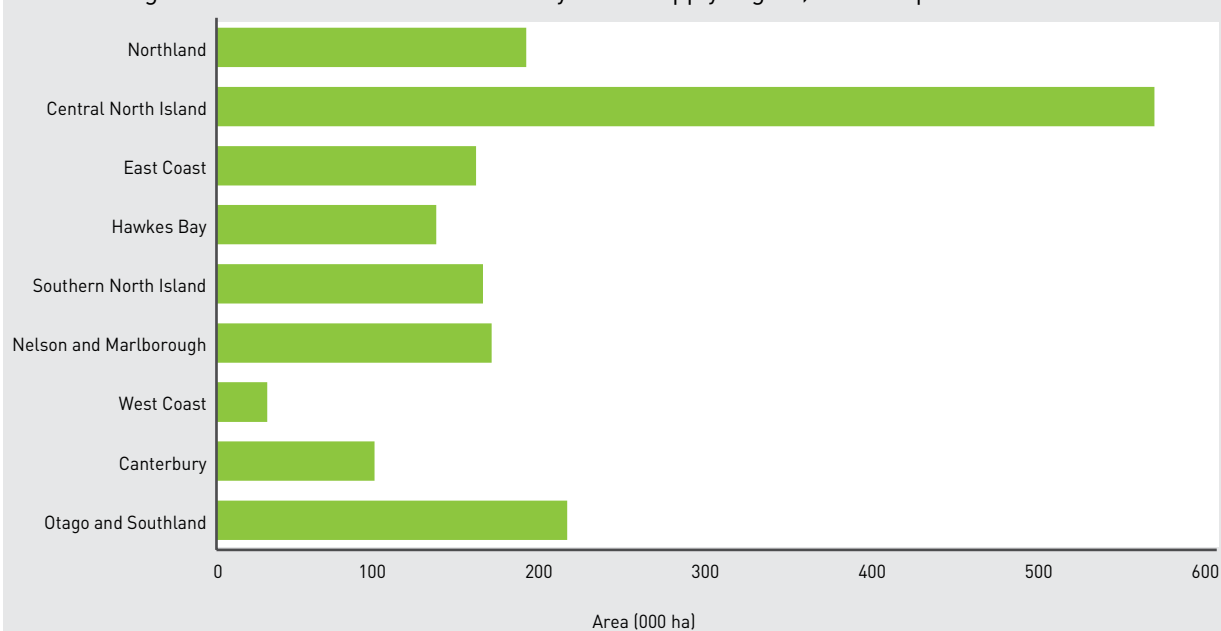


Figure 5: Forest area by age class and wood supply region, as at 1 April 2019

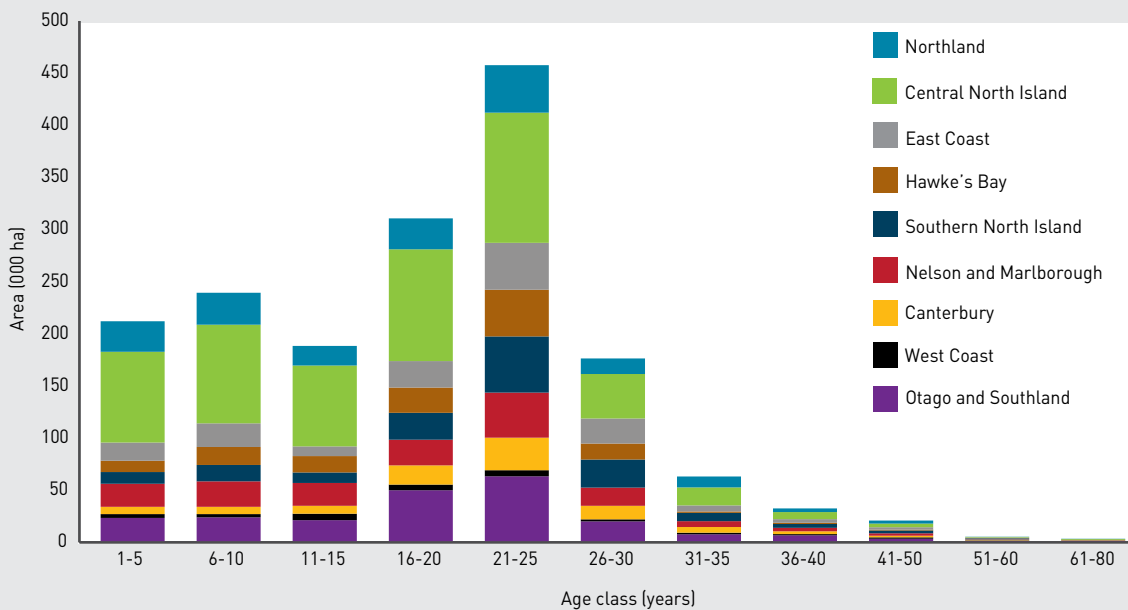
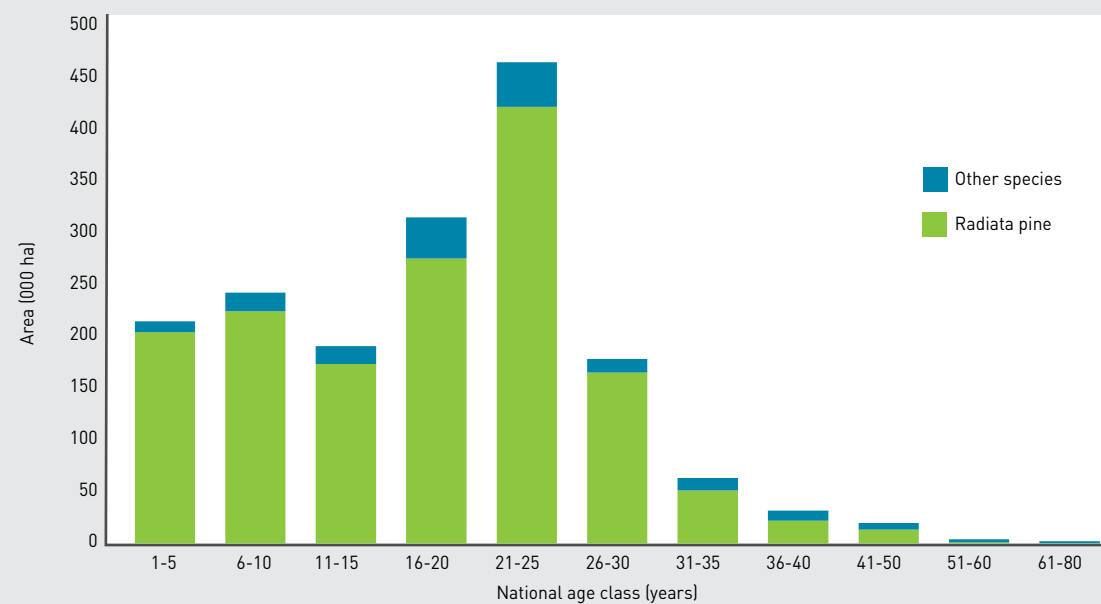


Figure 5 shows the distribution of forests across the nine wood supply regions in New Zealand by age class. The Central North Island has the largest area of forest across all age class groups. For the years 1 to 5, it accounts for around 41 percent (87,007 hectares) of the total in that age class, and 33 percent (562,792 hectares) across all age classes.

Species Distribution by age classes

Figure 6: Forest area by age class and species, as at 1 April 2019



As seen in Figures 6 and 7, radiata pine is the dominant species, making up 90 percent of the planted production forest area in New Zealand. The distribution of Douglas-fir is higher in Otago and Southland (27 percent) and Canterbury (18 percent) compared to the national distribution (6 percent) as growing conditions are more suitable.

Figure 7: Species Distribution, as at 1 April 2019

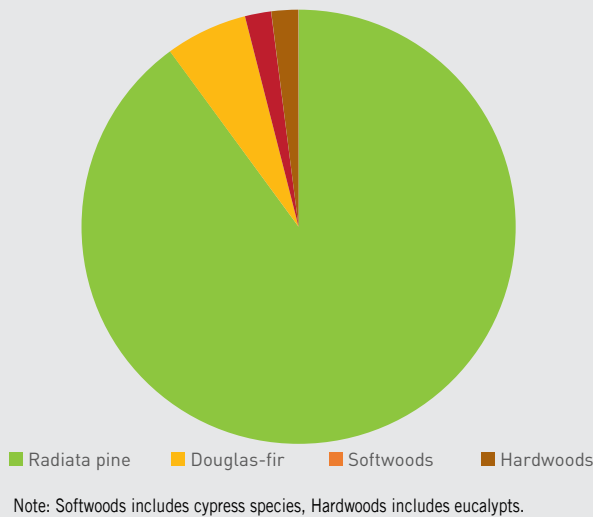


Figure 8: Radiata pine by Tending Regime, as at 1 April 2019

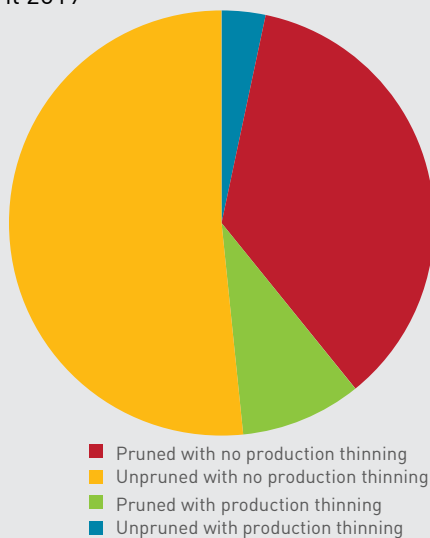
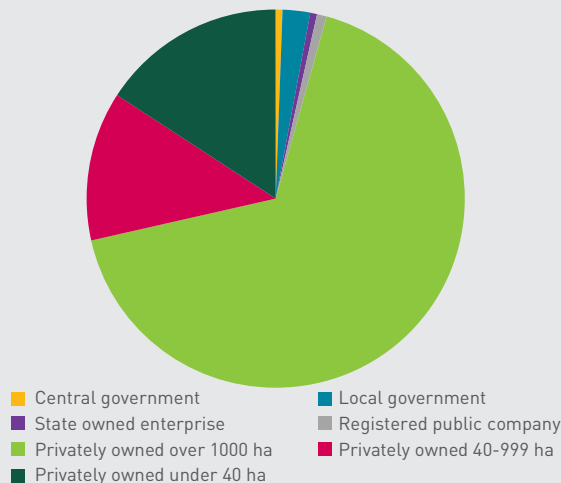


Figure 9: Forest ownership, as at 1 April 2019



Silviculture

Figure 8 indicates that about 45 percent (687,360 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 decrease from the previous year, and continuation of the general trend away from pruning.

The area of production forest that is, or is expected to be, thinned decreased slightly from last year, from 13 percent to just under 13 percent of the radiata pine planted forest (Figure 8). The proportion of production thinned forest is slightly higher in the North Island, with 13 percent (150,016 hectares) production thinned, than in the South island where 11 percent (41,035 hectares) is production thinned. Generally, the area of production thinned forest has declined over the past decade. The area of forest that is unpruned with no production thinning now makes up 51 percent of the forest estate (787,617 hectares), showing the trend towards minimally tended forests.

Standing Volume

The standing volume by Territorial Authority at 1 April 2019 is presented in Table 5 (see Appendix 1 for a definition of standing volume).

Ownership

In 2019, there were around 1,600 owners with more than 40 hectares of forests. The vast majority (94 percent) owned between 40 and 999 hectares of forest, making up 13 percent of the National Forest Estate in 2019 (Table 6). In contrast, the 7 percent of owners with 1,000 or more hectares accounted for 70 percent of total exotic plantation forest estate in New Zealand.

The number of owners with less than 40 hectares is difficult to estimate, but is likely to be over 10,000. It is estimated these owners represent around 17 percent of total forest area. 1.6 million hectares, or 95 percent of New Zealand's exotic plantation forests, were privately owned as at 1 April 2019 (Figure 9).

Notes

- The area of forest owned or managed by major forest owners can be found in the New Zealand Forest Industry booklet, Facts & Figures 2018/19, page 13 (see the New Zealand Forest Owners Association website for more information).
- Ownership is based solely on the ownership of the forest irrespective of the ownership of the land.
- Figure represents percentage of net stocked planted production forest area by ownership type.
- Significant changes in forest ownership have occurred since 2003, resulting in large areas of forest previously owned by public companies now being privately owned.
- The legal entities included in the "Privately owned" category are private companies, partnerships, individuals and trusts, which includes Maori trusts and incorporations.
- "Central Government" forests are predominantly Crown-owned forests on Maori lease-hold land. These forests are managed by Crown Forestry.

Table 5: Area, standing volume and area-weighted average age by territorial authority as at 1 April 2019

Territorial authority	Area (ha)	Standing volume (000 m ³)	Area-weighted average age (years)
Northland wood supply region			
Far North District	81,863	18,266	17.1
Whangarei District	30,204	6,346	16.0
Kaipara District	34,182	7,662	16.2
Auckland Council	39,695	10,560	19.1
Region total	185,943	42,834	17.2
Central North Island wood supply region			
Thames-Coromandel District	23,584	6,563	15.9
Hauraki District	3,427	1,372	19.3
Waikato District	16,379	6,680	19.9
Matamata-Piako District	1,310	516	20.3
Hamilton City	1	1	37.0
Waipa District	2,253	970	21.4
Otorohanga District	4,788	2,121	21.5
Waitomo District	25,757	9,954	19.9
Ruapehu District	51,711	17,740	17.7
South Waikato District	59,137	17,559	15.6
Taupō District	178,887	44,886	14.7
Tauranga District	110	56	24.2
Western Bay of Plenty District	21,877	7,323	17.4
Rotorua District	50,700	14,789	16.5
Kawerau District	153	25	9.9
Whakatane District	106,813	28,706	15.3
Opotiki District	15,906	4,824	17.1
Region total	562,792	164,082	16.1
East Coast wood supply region			
Gisborne District	155,617	54,964	19.0
Region total	155,617	54,964	19.0
Hawke's Bay wood supply region			
Wairoa District	54,730	18,820	17.7
Hastings District	60,817	21,000	17.8
Napier City	77	42	25.3
Central Hawke's Bay District	16,109	7,582	22.2
Region total	131,733	47,444	18.3
Southern North Island wood supply region			
New Plymouth District	3,851	1,559	22.1
Stratford District	6,886	2,705	22.8
South Taranaki District	9,344	4,095	22.4
Whanganui District	22,453	9,016	21.2
Rangitikei District	21,136	8,725	21.9
Manawatu District	6,808	3,059	23.2
Palmerston North City	2,300	785	19.2
Tararua District	18,974	6,385	19.0
Masterton District	32,387	11,815	20.9
Horowhenua District	6,503	2,653	21.6
Carterton District	10,131	2,845	17.3
South Wairarapa District	9,059	3,309	20.4
Kapiti Coast District	3,277	1,513	23.3
Upper Hutt City	4,604	1,643	19.9
Porirua City	1,151	657	27.8
Wellington City	574	269	23.5
Lower Hutt City	253	166	31.9
Region total	159,690	61,197	21.0
North Island total	1,195,775	370,522	17.5

Territorial authority	Area (ha)	Standing volume (000 m ³)	Area-weighted average age (years)
Nelson and Marlborough wood supply region			
Nelson City	8,812	2,310	16.7
Tasman District	82,094	22,256	17.4
Marlborough District	73,030	21,106	17.8
Kaikoura District	1,141	508	24.9
Region total	165,077	46,179	17.6
West Coast wood supply region			
Buller District	4,037	938	20.9
Grey District	12,985	2,542	17.4
Westland District	13,379	3,339	20.2
Region total	30,401	6,819	19.1
Canterbury wood supply region			
Hurunui District	36,196	9,354	19.7
Waimakariri District	8,306	2,744	21.5
Christchurch City	9,930	3,362	22.7
Selwyn District	9,076	2,817	21.7
Ashburton District	2,996	824	21.1
Timaru District	11,849	2,943	21.3
Mackenzie District	5,143	1,557	25.5
Waimate District	11,287	2,873	21.4
Region total	94,782	26,474	21.1
Otago and Southland wood supply region			
Waitaki District	22,344	4,696	18.0
Dunedin City	16,087	3,429	16.9
Queenstown-Lakes District	738	269	31.8
Central Otago District	7,242	1,622	22.8
Clutha District	82,127	17,037	18.5
Gore District	3,986	1,158	22.7
Southland District	77,227	16,217	18.5
Invercargill City	798	197	17.3
Region total	210,549	44,625	18.6
South Island total	500,809	124,097	18.8
New Zealand total	1,696,584	494,618	17.9

Table 6: Total area represented by each data source in the 2019 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			
10,000 hectares+	980	58%	25
1,000-9,999 hectares	210	12%	68
40-999 hectares	226	13%	1,524
NEFD Survey total¹	1,416	83%	1,617
NEFD resource <40 hectares	11	1%	
New planting imputation (1992-2006) ²	203	12%	
2004 AgriQuality small forest growers (<40 hectares) ³	67	4%	
Total	1,697	100	

Notes

1. Data collected from NEFD survey only.
2. Adjustment made this year to the area of new forest planted between 1992 and 2006. New planting imputation is discussed in Appendix 5.
3. *Small Forest Grower Survey Report*, AgriQuality New Zealand, April 2005

Table 7: Number of forest owners by national size class, as at 1 April 2019¹

Wood Supply Region	40-99 ha	100-499 ha	500-999 ha	1000-9999 ha	10,000+ ha
Northland	103	72	11	11	3
Central North Island	101	93	16	19	8
East Coast	38	38	8	16	2
Hawke's Bay	49	39	8	7	4
Southern North Island	188	157	18	11	2
Nelson and Marlborough	157	101	8	7	2
West Coast	4	4	2	0	1
Canterbury	71	73	5	7	1
Otago and Southland	130	74	9	16	5
New Zealand total²	841	651	85	94	28

Notes

1. The 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 owners in the 1,000-9,000 hectare and 10,000+ hectare size classes.

Table 8: Forest area by forest owner national size class, as at 1 April 2019

Wood Supply Region	< 40 ha	40-99 ha	100-499 ha	500-999 ha	1000-9999 ha	10,000+ ha	Total ha
Northland	35,426	6,504	13,461	8,426	40,288	81,839	185,943
Central North Island	57,572	6,065	19,557	12,134	72,470	394,994	562,792
East Coast	16,888	2,422	9,310	5,846	68,090	53,062	155,617
Hawke's Bay	21,925	3,142	8,068	6,177	17,735	74,686	131,733
Southern North Island	45,142	11,688	31,740	12,154	33,258	25,708	159,690
Nelson and Marlborough	24,820	9,871	18,484	5,751	21,188	84,963	165,077
West Coast	2,819	315	461	1,241	0	25,565	30,401
Canterbury	32,726	4,459	12,786	3,326	19,778	21,708	94,782
Otago and Southland	43,279	8,301	15,392	6,576	36,482	100,520	210,549
New Zealand total	280,596	52,767	129,258	61,630	309,289	863,045	1,696,584



Harvesting

An estimate of total harvest volumes for New Zealand

Along with NEFD harvest figures the Ministry for Primary Industries also publishes Forestry Production Statistics (FPS) quarterly and annually on the Te Uru Rākau website. These statistics, obtained from New Zealand wood processors, report on production and stock levels of various wood products and total roundwood removal. Note, in this report the total volume harvested is based on the FPS Roundwood data. This is due to NEFD figures only representing forests larger than 40 hectares and hence is not representative of national harvesting trends.

The estimated total harvest volume for the year ended 31 March 2019 was 36.4 million cubic metres, a 6 percent increase on the previous year. The majority of this harvest volume came from radiata pine (93 percent), followed by Douglas-fir (3 percent). Other exotic species made up the remaining 4 percent.

Radiata pine is typically harvested when it is between 26 and 32 years old. The area-weighted average clear fell age of radiata pine has increased from 28.7 years in 2018 to 29.1 years in the year ended 31 March 2019.

Of the radiata pine harvest, the proportion of recovered volume sold as pulp and chip logs has increased to 18 percent, from 16 percent in 2018. Approximately 12 percent of harvest was sold as pruned logs, a 2 percentage point decrease from last year.

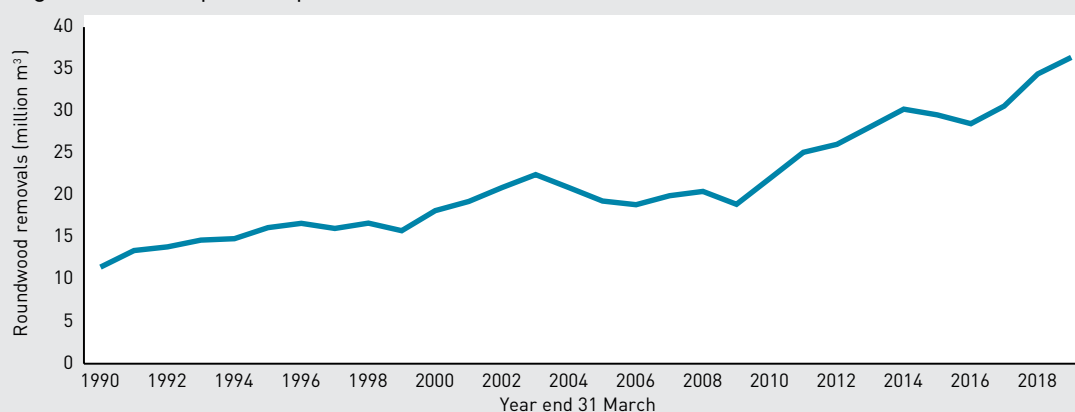
Deforestation Intentions Survey

The Deforestation Intention Survey is commissioned by MPI to provide information on future rates of deforestation of planted production forest. The work is needed to assist with projecting New Zealand's likely greenhouse gas emissions over the second commitment period of the Kyoto Protocol and beyond under New Zealand's Paris agreement commitments. This information is also needed to inform future policy development. The latest report can be found on the Te Uru Rākau website: <https://www.teururakau.govt.nz/news-and-resources/open-data-and-forecasting/forestry/new-zealands-forests/>

Wood Availability Forecasts

Regional and national wood availability forecasts are prepared by the industry and MPI under the NEFD work programme. They apply a range of harvesting scenarios and other factors that show potential volumes of logs that may be harvested by large and small-scale forest owners over the next 30 years. These forecasts are available on the Te Uru Rākau website: <https://www.teururakau.govt.nz/news-and-resources/open-data-and-forecasting/forestry/new-zealands-forests/>

Figure 10: Total planted production forest roundwood removals¹



1. Harvest volumes are based on MPI roundwood removal figures

Planting

We estimate 48,000 ha of total planting occurred during the year to December 2018, an increase on previous years. The total is made up of 7,000 hectares of new planting (figure 11) and 41,000 hectares of replanting. This number may not be fully reflective of all exotic planting that has occurred, as the NEFD only includes forests with over 40 hectares in its survey frame.

Approximately 51,609 hectares of previously harvested forest was awaiting either replanting or a land use decision as at 1 April 2019 (Figure 12). This is an increase of around 1,500 hectares on the previous year. The largest increase was for the Nelson and Marlborough wood supply region. The other regions showed typical levels of year-on-year variability, both increases and decreases.

Figure 11: Total planted area, year ending 31 December^{1,2}

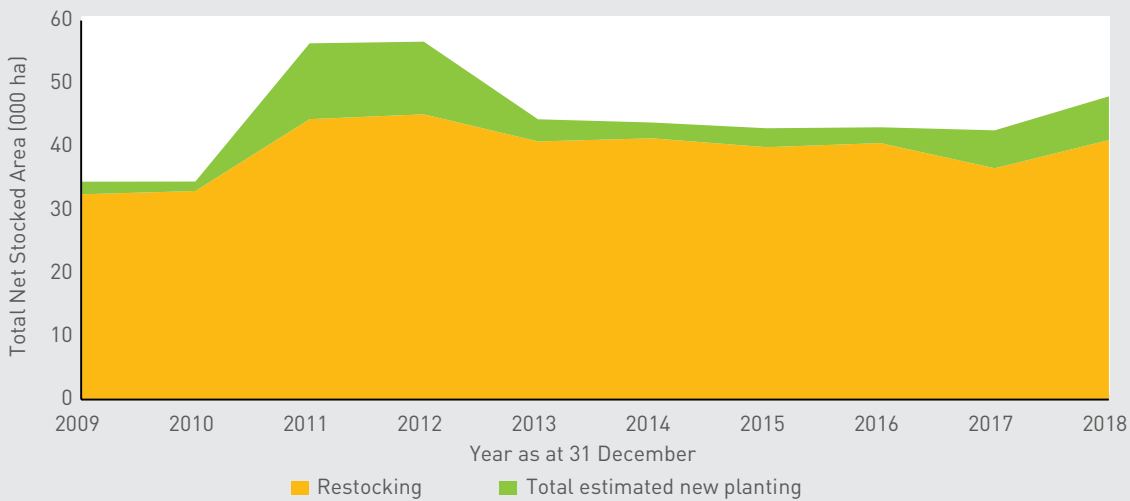
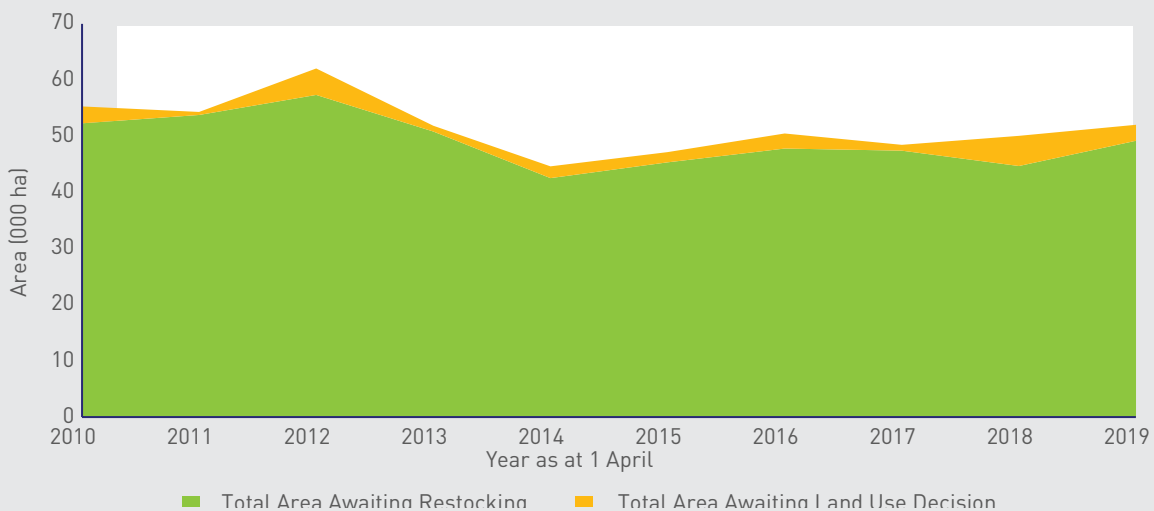


Figure 12: Harvested forest awaiting either replanting or a land use decision, as at 1 April 2019

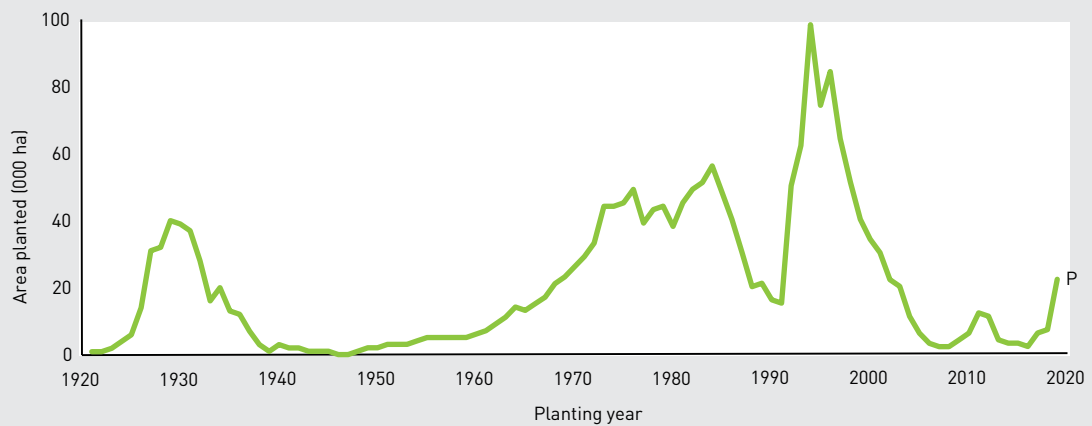


New planting

New planting to December 2019 is estimated at 22,000 hectares, based on a survey of large forest owners and the amount established by smaller forest owners under Te Uru Rākau forestry schemes (figure 13). This value will be finalised in the 2020 NEFD report.

The land cover prior to new planting is presented in Table 10. 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 and are not necessarily indicative of future trends.

Figure 13: New Land Planted in Production Forest in New Zealand



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 for Primary Industries and predecessor agencies which are reviewed when NEFD survey data are received and revised as appropriate.

Notes

1. The 2018 figure is compiled from new planting reported in the 2019 NEFD survey. 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.
2. This 2019 provisional estimate is based on information collected from the '2019 New Planting Survey' of selected large forest owners and managers, and known afforesters. This survey asks for estimates of planting during the 2019 calendar year. The estimates will be finalised in the 2020 NEFD report.

Table 9: New land planted in production forest in New Zealand¹

Year ended 31 December	New land planted (000 ha)	Year ended 31 December	New land planted (000 ha)	Year ended 31 December	New land planted (000 ha)
1921	1	1954	4	1987	30
1922	1	1955	5	1988	20
1923	2	1956	5	1989	21
1924	4	1957	5	1990	16
1925	6	1958	5	1991	15
1926	14	1959	5	1992	50
1927	31	1960	6	1993	62
1928	32	1961	7	1994	98
1929	40	1962	9	1995	74
1930	39	1963	11	1996	84
1931	37	1964	14	1997	64
1932	28	1965	13	1998	51
1933	16	1966	15	1999	40
1934	20	1967	17	2000	34
1935	13	1968	21	2001	30
1936	12	1969	23	2002	22
1937	7	1970	26	2003	20
1938	3	1971	29	2004	11
1939	1	1972	33	2005	6
1940	3	1973	44	2006	3
1941	2	1974	44	2007	2
1942	2	1975	45	2008	2
1943	1	1976	49	2009	4
1944	1	1977	39	2010	6
1945	1	1978	43	2011	12
1946	0	1979	44	2012	11
1947	0	1980	38	2013	4
1948	1	1981	45	2014	3
1949	2	1982	49	2015	3
1950	2	1983	51	2016	2
1951	3	1984	56	2017	6
1952	3	1985	48	2018 ²	7r
1953	3	1986	40	2019 ³	22p

Sources

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

Notes

1. New planting numbers from 1921 to 1950 are taken from Statistics of the Forests and Forest Industries of New Zealand to 1974. The areas of new planted forests have been estimated independently from total planted forest areas shown in figure 3.
2. This figure is compiled from new planting reported in the 2019 NEFD survey. 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 based on information collected from the '2019 New Planting Survey' of selected large forest owners and managers, and known afforesters. This survey asks for estimates of planting during the 2019 calendar year which be finalised in the 2020 NEFD report.

Table 10: Land cover prior to new planting, year ending December

Calendar years	Improved pasture ¹ [%]	Unimproved pasture ² [%]	Other woody vegetation ³ [%]	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	42	53	5	12,000
2012	61	32	7	11,000
2013	33	43	24	3,500
2014	13	79	8	2,500
2015	30	43	27	3,000
2016	1	63	36	2,500
2017	53	40	7	6,000
2018	61	20	19	7,000

Notes

1. Improved pasture - land that has been fertilised and contains improved pasture species.
2. Unimproved pasture - land not fertilised, with no improved pasture species sown.
3. Woody vegetation - land predominantly covered in bracken gorse, manuka, kanuka, or other woody species.

Table 11 shows the split of new planting from different sources. There have been no new planting adjustments from 2007 as data from MPIs nursery survey aligns with the data collected in the NEFD survey. In the past, adjustments have needed to be made where these two data sets do not align. More information on the new planting adjustments can be found in Appendix 5 (page 50).

Table 11: New planting, split by survey data and adjusted data, year ending December

Calendar year of planting (ha)	Total new planting ¹	New planting collected in postal surveys ²	New planting adjustments ³
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	11,000	11,000	-
2013	3,500	3,500	-
2014	2,500	2,500	-
2015	3,000	3,000	-
2016	2,500	2,500	-
2017	6,000	6,000	-
2018	7,000	7,000	-

Notes

1. As estimated from the 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.

Nursery Survey

Along with planting information gathered in the NEFD, MPI also runs the annual “Nursery Survey”. This report surveys commercial forest nurseries for tree stock sales information. It provides provisional estimates of tree stock sales and areas of commercial forest planted annually.

This report is published on Te Uru Rākau’s website:
<https://www.teururakau.govt.nz/news-and-resources/open-data-and-forecasting/forestry/new-zealands-forests/>



Forest area by age class and wood supply region

The following presents net stocked area by region for all New Zealand plantation species: radiata pine, Douglas-fir, cypress species, other softwoods, eucalypt species, and other hardwoods.



Table 12: Area planted in all species by territorial authority, as at 1 April 2019

	Age class [years]											Total [ha]
	1-5 Years [ha]	6-10 Years [ha]	11-15 Years [ha]	16-20 Years [ha]	21-25 Years [ha]	26-30 Years [ha]	31-35 Years [ha]	36-40 Years [ha]	41-50 Years [ha]	51-60 Years [ha]	61+ Years [ha]	
Northland wood supply region												
Far North District	12,657	16,439	9,557	10,537	16,614	5,002	7,692	1,966	1,315	39	45	81,863
Whangarei District	6,332	5,309	2,154	4,028	8,013	2,556	985	406	387	12	22	30,204
Kaipara District	8,007	4,587	1,938	4,388	9,539	3,918	1,215	326	207	31	26	34,182
Auckland Council	2,258	4,181	5,058	10,702	11,432	3,490	630	785	1,047	86	27	39,695
Region total	29,253	30,516	18,707	29,655	45,598	14,966	10,522	3,483	2,956	168	120	185,943
Central North Island wood supply region												
Thames-Coromandel District	3,270	4,969	4,766	3,936	3,509	1,058	411	1,087	476	38	64	23,584
Hauraki District	363	378	163	451	1,314	664	37	27	24	0	6	3,427
Waikato District	1,238	1,273	643	5,038	5,612	1,962	304	155	70	22	62	16,379
Matamata-Piako District	127	118	241	151	243	278	44	38	67	0	3	1,310
Hamilton City	0	0	0	0	0	0	0	1	0	0	0	1
Waipa District	15	239	77	593	853	363	31	69	10	0	3	2,253
Otorohanga District	122	160	317	1,559	1,487	885	165	20	66	5	2	4,788
Waitomo District	404	1,814	4,761	5,845	9,981	1,826	455	389	258	16	9	25,757
Ruapehu District	6,730	9,856	2,053	4,956	20,190	4,275	2,223	1,117	264	2	45	51,711
South Waikato District	9,112	7,662	9,790	14,849	12,948	4,388	156	54	45	6	127	59,137
Taupō District	35,726	33,584	27,507	32,824	26,929	12,507	6,850	1,688	855	330	87	178,887
Tauranga District	0	0	0	14	73	1	16	6	0	0	0	110
Western Bay of Plenty District	3,330	2,277	2,543	4,664	5,171	2,983	366	212	238	6	88	21,877
Rotorua District	6,465	7,307	8,994	12,244	9,699	3,960	715	543	507	73	192	50,700
Kawerau District	85	0	8	40	14	6	0	0	0	0	0	153
Whakatane District	16,935	20,781	14,803	18,379	25,698	6,775	1,942	926	480	44	50	106,813
Opotiki District	3,085	4,290	889	1,635	1,054	720	3,549	574	110	0	0	15,906
Region total	87,007	94,707	77,555	107,178	124,776	42,651	17,264	6,906	3,470	542	738	562,792
East Coast wood supply region												
Gisborne District	17,462	22,535	9,320	25,341	44,935	23,977	5,849	3,360	2,200	607	32	155,617
Region total	17,462	22,535	9,320	25,341	44,935	23,977	5,849	3,360	2,200	607	32	155,617
Hawke's Bay wood supply region												
Wairoa District	4,326	8,224	7,188	9,546	20,222	4,342	269	176	322	78	37	54,730
Hastings District	6,043	7,733	8,035	13,021	15,799	8,672	532	603	309	35	35	60,817
Napier City	0	0	0	0	53	12	12	0	0	0	0	77
Central Hawke's Bay District	326	1,368	527	1,674	8,701	2,238	511	370	278	59	57	16,109
Region total	10,695	17,325	15,750	24,241	44,775	15,264	1,324	1,149	909	172	129	131,733
Southern North Island wood supply region												
New Plymouth District	32	266	199	902	1,438	604	256	68	83	1	2	3,851
Stratford District	732	581	456	507	2,508	1,157	316	125	23	368	113	6,886
South Taranaki District	402	364	529	1,438	3,738	2,000	435	330	95	3	10	9,344
Whanganui District	1,216	1,535	1,747	3,759	9,055	3,384	1,397	157	95	27	80	22,453
Rangitikei District	276	1,730	1,045	4,053	9,983	2,686	414	308	425	195	22	21,136
Manawatu District	187	632	112	1,169	2,122	1,672	389	317	185	6	17	6,808
Palmerston North City	185	450	417	151	371	440	49	74	164	0	0	2,300
Tararua District	1,961	3,805	875	2,070	6,168	2,243	551	898	367	27	9	18,974
Masterton District	2,953	2,665	2,182	5,153	9,142	6,500	2,420	626	464	248	35	32,387
Horowhenua District	428	484	830	1,006	1,251	1,818	321	188	107	26	43	6,503
Carterton District	1,733	1,303	522	2,106	3,046	889	163	127	195	47	0	10,131
South Wairarapa District	580	1,259	375	1,635	2,609	1,753	364	231	242	10	1	9,059
Kapiti Coast District	213	70	67	741	900	695	492	72	28	0	0	3,277
Upper Hutt City	511	535	558	833	1,048	478	255	165	141	50	31	4,604
Porirua City	3	13	40	105	141	550	165	65	69	0	0	1,151
Wellington City	0	68	0	36	263	178	27	2	0	0	0	574
Lower Hutt City	0	0	0	10	102	2	9	97	33	0	0	253
Region total	11,411	15,759	9,955	25,675	53,884	27,048	8,023	3,850	2,716	1,008	363	159,690
North Island total	155,828	180,842	131,287	212,089	313,967	123,905	42,982	18,747	12,250	2,497	1,382	1,195,775

	Age class (years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	604	2,001	1,650	1,512	1,891	633	100	290	94	21	16	8,812
Tasman District	9,001	12,727	13,748	14,845	18,698	7,800	2,191	1,661	1,136	188	99	82,094
Marlborough District	12,303	9,595	6,617	8,217	21,922	8,881	3,267	1,214	888	111	17	73,030
Kaikoura District	21	38	9	165	624	132	24	22	76	30	0	1,141
Region total	21,929	24,361	22,024	24,739	43,134	17,446	5,582	3,187	2,194	350	132	165,077
West Coast wood supply region												
Buller District	465	C	222	330	625	308	303	467	C	10	31	4,037
Grey District	2,314	C	2,943	2,579	1,597	752	394	444	C	336	21	12,985
Westland District	806	984	3,099	2,355	3,463	900	904	248	479	37	104	13,379
Region total	3,585	3,136	6,264	5,264	5,685	1,960	1,601	1,159	1,208	383	156	30,401
Canterbury wood supply region												
Hurunui District	2,722	3,378	4,287	8,421	11,009	3,200	1,464	949	574	86	107	36,196
Waimakariri District	509	452	674	1,437	2,279	2,493	214	96	82	67	4	8,306
Christchurch City	752	395	264	1,285	4,118	2,076	539	333	123	6	39	9,930
Selwyn District	1,250	630	132	1,223	2,560	1,685	1,029	320	200	25	22	9,076
Ashburton District	241	367	359	433	921	225	175	91	94	64	26	2,996
Timaru District	915	546	733	3,815	2,587	1,484	1,012	273	412	30	42	11,849
Mackenzie District	97	308	253	836	1,808	835	420	192	187	116	90	5,143
Waimate District	616	880	689	1,002	6,034	914	455	567	52	51	28	11,287
Region total	7,101	6,956	7,390	18,452	31,316	12,911	5,307	2,821	1,724	445	358	94,782
Otago and Southland wood supply region												
Waitaki District	C	C	671	3,719	8,505	1,744	979	476	156	74	24	22,344
Dunedin City	3,445	3,578	943	1,045	3,115	2,076	755	869	214	20	27	16,087
Queenstown-Lakes District	0	0	3	49	172	103	245	59	72	28	7	738
Central Otago District	C	C	562	2,722	1,323	668	378	312	357	155	57	7,242
Clutha District	7,529	8,506	10,341	19,086	23,110	8,411	2,881	1,499	576	92	97	82,127
Gore District	37	6	104	1,528	1,477	672	37	50	60	10	5	3,986
Southland District	7,442	7,520	7,485	20,688	24,394	5,188	1,280	2,209	922	83	16	77,227
Invercargill City	156	170	43	59	176	95	48	44	5	2	0	798
Region total	22,302	22,791	20,152	48,896	62,272	18,956	6,603	5,518	2,362	464	233	210,549
South Island total	54,918	57,244	55,830	97,351	142,407	51,273	19,092	12,684	7,488	1,641	879	500,809
New Zealand total	210,746	238,086	187,117	309,440	456,374	175,178	62,075	31,431	19,739	4,138	2,261	1,696,584

Figure 14: Distribution of all species forest area by age class and island, as at 1 April 2019

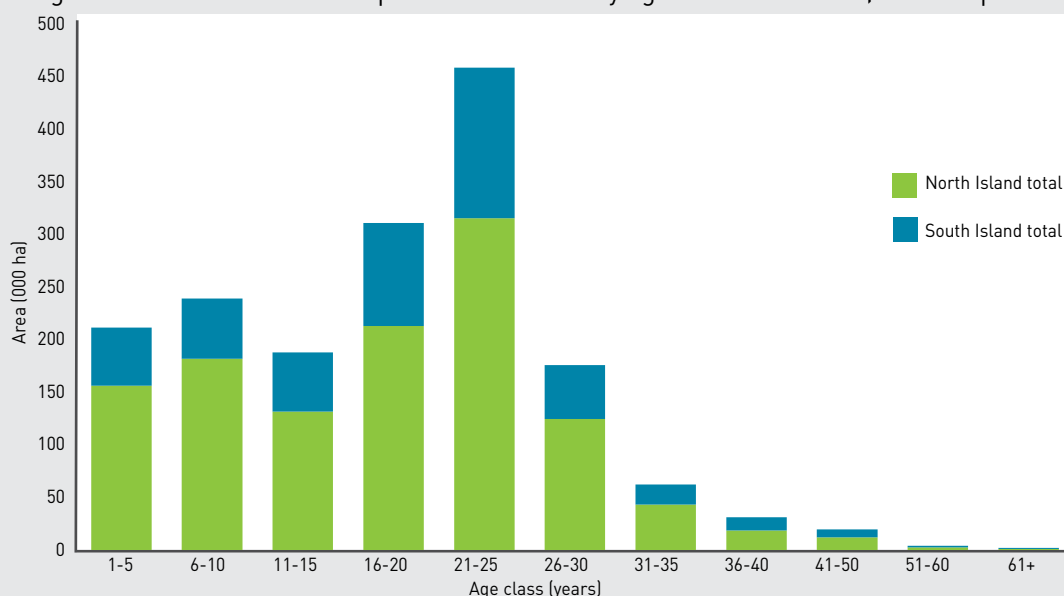


Table 13: Area planted in radiata pine by territorial authority, as at 1 April 2019

	Radiata pine											Total (ha)
	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+ Years (ha)	
Northland wood supply region												
Far North District	12,579	16,408	9,431	10,032	16,306	4,863	7,501	1,828	1,192	18	0	80,158
Whangarei District	6,317	5,307	2,152	3,929	7,706	2,421	967	329	363	1	3	29,495
Kaipara District	7,994	4,585	1,904	4,207	9,248	3,861	1,194	304	181	25	7	33,510
Auckland Council	2,258	4,167	4,981	10,481	11,035	3,313	508	683	959	59	14	38,457
Region total	29,147	30,467	18,468	28,649	44,295	14,458	10,170	3,144	2,695	103	24	181,619
Central North Island wood supply region												
Thames-Coromandel District	3,270	4,967	4,766	3,925	3,466	1,029	382	1,040	422	36	22	23,325
Hauraki District	358	313	136	415	1,297	658	34	26	16	0	0	3,253
Waikato District	1,229	1,269	637	4,895	5,573	1,911	271	155	54	20	54	16,068
Matamata-Piako District	126	118	241	131	230	260	43	37	67	0	0	1,253
Hamilton City	0	0	0	0	0	0	0	1	0	0	0	1
Waipa District	15	239	77	455	727	355	28	59	10	0	2	1,967
Otorohanga District	122	160	294	1,474	1,448	823	117	20	27	0	0	4,485
Waitomo District	404	1,393	3,630	5,677	9,682	1,750	412	351	26	0	0	23,324
Ruapehu District	5,809	9,493	2,000	4,579	19,894	4,198	2,201	1,113	131	1	0	49,419
South Waikato District	8,591	5,646	9,111	14,408	12,895	4,345	104	49	34	3	78	55,264
Taupō District	34,631	32,084	26,711	31,100	26,083	10,979	6,307	880	74	47	55	168,951
Tauranga District	0	0	0	11	65	0	16	5	0	0	0	97
Western Bay of Plenty District	3,304	2,272	2,444	4,404	4,927	2,898	328	135	212	2	3	20,928
Rotorua District	6,337	7,207	8,855	11,548	9,024	3,492	368	238	77	6	15	47,168
Kawerau District	43	0	8	20	0	6	0	0	0	0	0	77
Whakatane District	16,881	20,764	14,563	18,043	23,890	5,859	240	331	274	8	9	100,862
Opotiki District	3,084	4,283	884	1,618	1,046	715	3,544	574	110	0	0	15,858
Region total	84,204	90,207	74,357	102,703	120,248	39,278	14,395	5,014	1,534	123	238	532,299
East Coast wood supply region												
Gisborne District	17,112	21,439	8,864	24,702	44,346	23,768	5,716	3,161	1,910	26	6	151,049
Region total	17,112	21,439	8,864	24,702	44,346	23,768	5,716	3,161	1,910	26	6	151,049
Hawke's Bay wood supply region												
Wairoa District	4,108	7,823	7,142	9,136	20,170	4,310	259	169	269	2	4	53,392
Hastings District	6,010	7,316	7,926	12,898	15,589	8,611	428	538	258	22	16	59,611
Napier City	0	0	0	0	53	6	8	0	0	0	0	67
Central Hawke's Bay District	299	1,140	523	1,610	8,629	2,198	417	364	258	28	7	15,473
Region total	10,417	16,279	15,591	23,644	44,441	15,125	1,112	1,071	785	52	27	128,543
Southern North Island wood supply region												
New Plymouth District	15	182	104	737	1,102	573	243	62	79	1	0	3,097
Stratford District	454	283	452	486	2,470	1,127	310	57	8	0	1	5,648
South Taranaki District	402	361	215	1,375	3,692	1,967	427	326	95	3	7	8,870
Whanganui District	1,216	1,525	1,624	3,573	8,966	3,343	1,359	153	89	26	73	21,948
Rangitikei District	241	1,258	804	3,705	9,815	2,599	378	283	351	111	2	19,546
Manawatu District	181	632	108	1,091	2,062	1,625	337	287	177	6	5	6,511
Palmerston North City	157	406	417	143	353	403	49	74	164	0	0	2,165
Tararua District	1,961	3,518	870	2,012	6,144	2,231	533	633	348	24	7	18,281
Masterton District	2,888	2,616	2,152	5,060	9,031	6,447	2,367	589	455	120	14	31,738
Horowhenua District	424	484	813	1,003	1,197	1,762	298	186	107	23	29	6,326
Carterton District	1,689	1,303	520	2,086	3,021	869	158	116	181	4	0	9,947
South Wairarapa District	580	1,259	371	1,624	2,590	1,685	333	216	122	5	1	8,786
Kapiti Coast District	213	70	67	716	882	676	491	71	28	0	0	3,213
Upper Hutt City	511	535	558	826	1,034	460	211	135	139	24	31	4,463
Porirua City	3	13	40	105	135	550	163	65	69	0	0	1,143
Wellington City	0	68	0	36	263	178	27	2	0	0	0	574
Lower Hutt City	0	0	0	10	100	0	9	97	33	0	0	249
Region total	10,934	14,512	9,115	24,589	52,856	26,494	7,693	3,351	2,445	347	170	152,505
North Island total	151,814	172,903	126,395	204,286	306,185	119,122	39,086	15,741	9,368	651	465	1,146,016

	Radiata pine											Total (ha)
	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+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	604	1,992	1,650	1,501	1,821	625	85	69	24	1	0	8,372
Tasman District	8,935	12,649	13,558	14,091	16,867	6,507	915	749	495	96	15	74,877
Marlborough District	12,239	9,329	6,437	7,993	21,188	8,734	2,903	920	751	99	2	70,594
Kaikoura District	21	26	9	149	605	132	22	19	47	2	0	1,032
Region total	21,799	23,996	21,654	23,734	40,480	15,998	3,925	1,757	1,317	198	17	154,875
West Coast wood supply region												
Buller District	460	C	148	119	546	287	206	84	C	0	0	2,659
Grey District	2,164	C	2,541	2,265	1,547	721	286	312	C	121	0	11,263
Westland District	804	984	1,358	1,112	2,027	125	69	24	453	1	0	6,957
Region total	3,428	2,885	4,047	3,496	4,120	1,133	561	420	667	122	0	20,879
Canterbury wood supply region												
Hurunui District	2,289	2,419	2,975	7,109	9,602	2,994	981	411	255	70	9	29,113
Waimakariri District	432	387	643	1,396	2,144	2,295	181	83	38	66	4	7,668
Christchurch City	752	388	260	856	3,098	1,199	439	277	109	2	23	7,403
Selwyn District	1,190	630	120	959	2,136	1,191	731	250	93	16	1	7,317
Ashburton District	239	353	309	330	730	152	61	65	42	34	20	2,335
Timaru District	749	189	354	648	2,119	1,355	785	85	50	4	0	6,338
Mackenzie District	85	146	64	237	907	502	73	102	93	23	0	2,233
Waimate District	616	784	474	695	3,137	786	354	268	37	23	14	7,188
Region total	6,352	5,296	5,198	12,230	23,873	10,473	3,605	1,541	717	238	71	69,593
Otago and Southland wood supply region												
Waitaki District	C	C	518	3,386	4,899	1,611	810	361	142	C	C	17,453
Dunedin City	3,287	3,513	926	870	2,834	1,826	498	192	69	13	1	14,029
Queenstown-Lakes District	0	0	0	13	48	13	34	46	56	23	7	240
Central Otago District	C	C	45	241	751	340	167	143	79	4	50	1,860
Clutha District	5,089	5,132	7,342	12,481	16,507	7,290	1,106	534	335	C	C	55,847
Gore District	0	6	2	335	1,104	527	35	48	57	0	1	2,115
Southland District	5,184	4,201	4,232	9,183	13,165	3,722	661	1,018	601	41	2	42,009
Invercargill City	156	170	43	59	174	94	48	44	5	2	0	795
Region total	17,034	15,393	13,108	26,568	39,482	15,422	3,359	2,386	1,344	173	78	134,348
South Island total	48,613	47,570	44,007	66,029	107,955	43,026	11,450	6,104	4,045	731	166	379,695
New Zealand total	200,427	220,473	170,402	270,315	414,140	162,148	50,536	21,844	13,414	1,382	631	1,525,711

Figure 15: Distribution of radiata pine forest area by age class and island, as at 1 April 2019

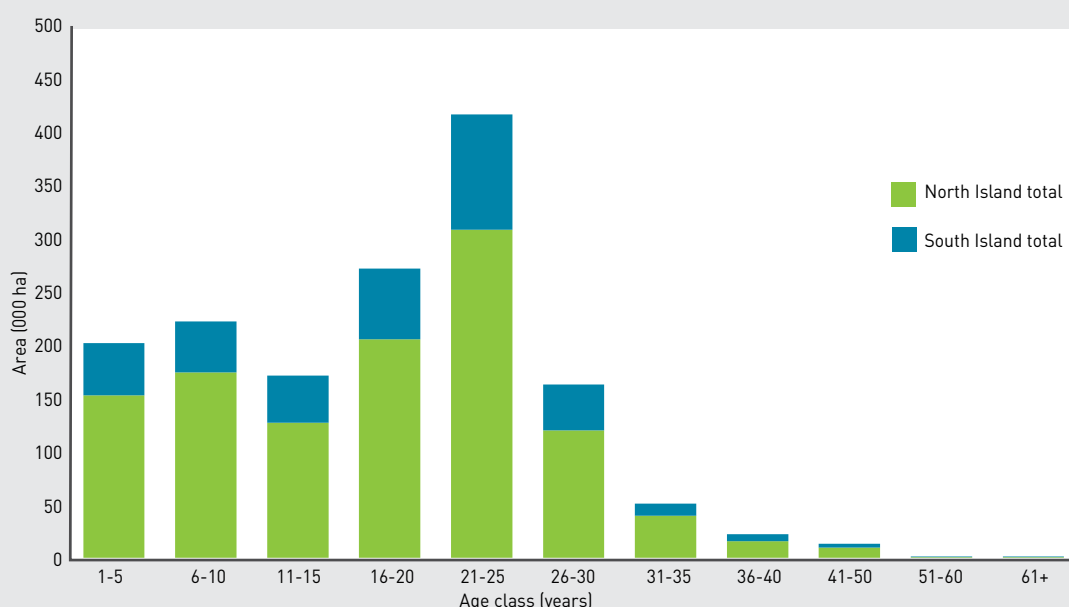


Table 14: Area planted in Douglas-fir by territorial authority, as at 1 April 2019

	Douglas-fir											Total (ha)
	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+ Years (ha)	
Northland wood supply region												
Far North District	0	0	0	0	0	2	0	0	2	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	0	0	6	0	0	0	0	0	6
Region total	0	0	0	0	0	8	0	0	2	0	0	10
Central North Island wood supply region												
Thames-Coromandel District	0	0	0	0	10	0	0	0	0	0	0	10
Hauraki District	0	8	0	0	0	0	0	0	0	0	0	8
Waikato District	0	0	0	0	0	1	1	0	0	0	0	2
Matamata-Piako District	0	0	0	4	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	0	1	1	1	0	0	0	0	0	3
Otorohanga District	0	0	17	65	20	12	0	0	34	0	0	148
Waitomo District	0	359	1,130	124	220	50	1	2	217	2	0	2,105
Ruapehu District	256	246	8	237	116	9	1	2	46	1	1	923
South Waikato District	24	0	349	85	13	1	0	0	5	0	7	484
Taupō District	147	100	587	1,430	210	1,444	469	764	702	48	9	5,910
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Western Bay of Plenty District	0	0	0	6	8	2	0	2	20	1	1	40
Rotorua District	0	0	3	409	332	352	154	227	387	42	120	2,026
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	0	6	107	138	1,570	816	1,627	588	70	21	23	4,966
Opotiki District	0	0	0	0	0	0	0	0	0	0	0	0
Region total	427	719	2,201	2,499	2,500	2,688	2,253	1,585	1,481	115	161	16,629
East Coast wood supply region												
Gisborne District	181	253	336	519	380	1	1	2	108	382	0	2,163
Region total	181	253	336	519	380	1	1	2	108	382	0	2,163
Hawke's Bay wood supply region												
Wairoa District	18	44	2	38	0	1	0	0	31	44	0	178
Hastings District	0	1	0	18	C	2	C	22	25	5	2	217
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	0	0	7	C	22	C	1	0	8	5	50
Region total	18	45	2	63	138	25	11	23	56	57	7	445
Southern North Island wood supply region												
New Plymouth District	0	0	0	0	0	0	0	0	0	0	0	0
Stratford District	0	0	0	2	0	0	0	0	13	317	90	422
South Taranaki District	0	0	0	0	0	0	0	1	0	0	0	1
Whanganui District	0	0	10	7	10	8	C	C	C	0	0	53
Rangitikei District	0	150	1	34	74	2	C	C	C	8	1	283
Manawatu District	0	0	0	7	0	2	C	C	C	0	0	20
Palmerston North City	5	18	0	0	0	0	0	0	0	0	0	23
Tararua District	0	0	1	17	5	0	0	1	11	0	0	35
Masterton District	2	1	0	7	11	2	0	1	3	88	12	127
Horowhenua District	0	0	0	0	0	1	0	0	0	0	0	1
Carterton District	0	0	0	8	16	1	0	0	0	0	0	25
South Wairarapa District	0	0	0	0	0	0	1	0	0	0	0	1
Kapiti Coast District	0	0	0	3	0	0	0	0	0	0	0	3
Upper Hutt City	0	0	0	5	6	1	3	0	2	3	0	20
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
Region total	6	169	12	90	122	17	26	14	38	416	103	1,014
North Island total	632	1,186	2,551	3,171	3,140	2,739	2,291	1,624	1,685	970	271	20,261

	Douglas-fir											Total (ha)
	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+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	0	8	0	5	54	2	15	180	47	15	2	328
Tasman District	11	33	86	625	1,464	1,159	1,101	564	333	47	27	5,450
Marlborough District	0	187	62	31	498	38	276	222	56	12	3	1,385
Kaikoura District	0	12	0	1	19	0	0	1	25	28	0	86
Region total	11	240	148	662	2,035	1,199	1,392	967	461	102	32	7,249
West Coast wood supply region												
Buller District	5	242	74	207	52	8	2	34	11	0	1	636
Grey District	115	9	229	227	17	0	0	51	97	153	2	900
Westland District	0	0	0	7	4	0	0	13	0	11	0	35
Region total	120	251	303	441	73	8	2	98	108	164	3	1,571
Canterbury wood supply region												
Hurunui District	409	603	689	867	1,331	164	354	292	81	3	7	4,800
Waimakariri District	27	63	10	28	47	15	10	10	32	0	0	242
Christchurch City	0	0	0	59	70	6	33	28	11	0	0	207
Selwyn District	48	0	C	214	235	411	C	64	99	6	21	1,359
Ashburton District	0	14	C	51	117	35	C	22	52	0	2	376
Timaru District	166	341	353	3,099	117	84	25	188	352	15	29	4,769
Mackenzie District	0	129	182	577	290	217	74	80	36	8	0	1,593
Waimate District	0	52	152	240	2,710	39	24	97	11	16	13	3,354
Region total	650	1,202	1,431	5,135	4,917	971	819	781	674	48	72	16,699
Otago and Southland wood supply region												
Waitaki District	C	C	129	256	3,419	49	65	85	8	C	C	4,087
Dunedin City	2	61	0	155	176	94	159	647	129	3	13	1,438
Queenstown-Lakes District	0	0	0	31	110	81	198	13	16	2	0	451
Central Otago District	C	C	421	2,310	167	36	97	67	55	4	0	3,526
Clutha District	2,181	3,084	2,777	5,564	6,143	930	1,453	734	180	C	C	23,089
Gore District	0	0	1	1,154	66	21	0	2	3	10	4	1,261
Southland District	723	1,496	2,199	8,508	9,161	231	306	1,055	63	37	0	23,779
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	3,087	4,903	5,527	17,978	19,242	1,442	2,278	2,603	454	94	23	57,630
South Island total	3,868	6,596	7,409	24,216	26,267	3,620	4,490	4,449	1,697	408	130	83,149
New Zealand total	4,500	7,782	9,960	27,387	29,407	6,359	6,781	6,073	3,382	1,378	401	103,410

Figure 16: Distribution of Douglas-fir forest area by age class and island, as at 1 April 2019

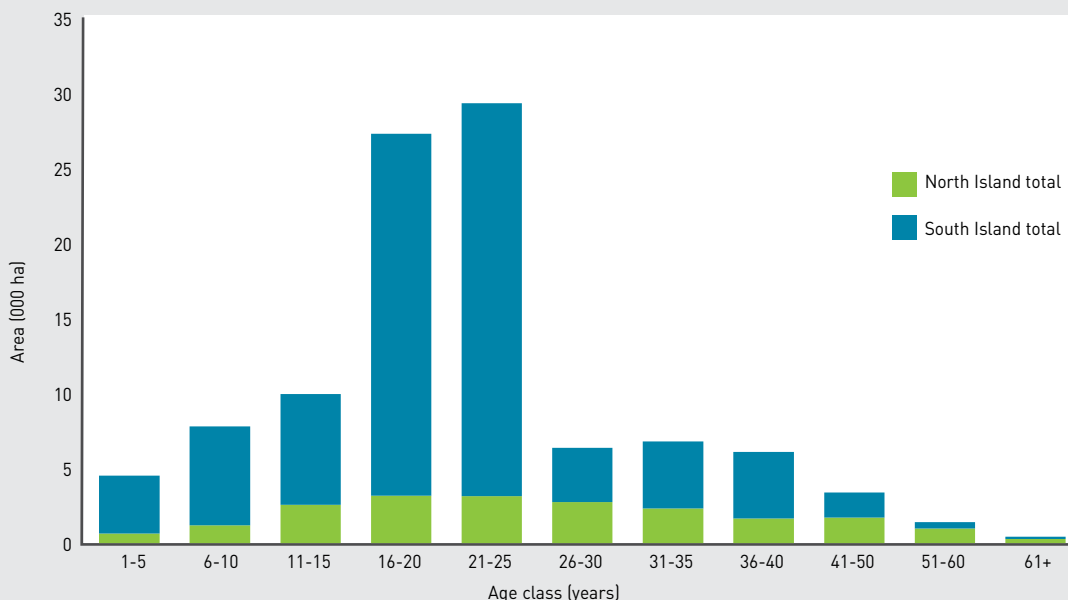


Table 15: Area planted in cypress species by territorial authority, as at 1 April 2019

	Cypress species											Total (ha)
	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+ Years (ha)	
Northland wood supply region												
Far North District	0	8	3	47	62	22	4	2	18	0	0	166
Whangarei District	0	1	0	8	24	3	0	2	0	0	0	38
Kaipara District	0	2	21	20	2	1	0	0	2	0	0	48
Auckland Council	0	10	20	42	96	46	19	0	8	1	0	242
Region total	0	21	44	117	184	72	23	4	28	1	0	494
Central North Island wood supply region												
Thames-Coromandel District	0	0	0	0	2	0	1	2	0	0	0	5
Hauraki District	0	20	0	0	0	0	3	0	0	0	0	23
Waikato District	7	0	0	0	1	0	7	0	1	0	0	16
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	3	0	0	0	0	0	0	3
Otorohanga District	0	0	0	0	0	0	4	0	0	0	0	4
Waitomo District	0	0	0	0	1	0	0	2	0	0	0	3
Ruapehu District	3	1	0	12	0	0	1	0	0	0	26	43
South Waikato District	1	6	2	0	1	15	3	0	0	0	0	28
Taupō District	32	198	152	6	48	3	3	0	0	0	0	442
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Western Bay of Plenty District	0	0	47	15	13	1	18	2	0	0	0	96
Rotorua District	30	4	100	36	9	1	44	7	0	0	1	232
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	8	1	90	12	69	2	40	0	0	0	0	222
Opotiki District	0	2	0	0	0	0	0	0	0	0	0	2
Region total	81	232	391	81	147	22	124	13	1	0	27	1,119
East Coast wood supply region												
Gisborne District	0	45	32	32	40	33	19	12	34	24	4	275
Region total	0	45	32	32	40	33	19	12	34	24	4	275
Hawke's Bay wood supply region												
Wairoa District	0	0	9	158	0	20	0	0	0	0	13	200
Hastings District	0	20	88	31	C	2	C	0	0	0	0	149
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	0	3	0	C	0	C	1	1	0	0	19
Region total	0	20	100	189	16	22	6	1	1	0	13	368
Southern North Island wood supply region												
New Plymouth District	0	0	0	0	0	0	3	0	0	0	1	4
Stratford District	0	48	0	0	4	0	4	40	0	13	4	113
South Taranaki District	0	0	1	4	0	0	0	0	0	0	0	5
Whanganui District	0	8	95	20	2	0	C	C	C	0	0	135
Rangitikei District	0	3	23	4	12	3	C	C	C	31	0	161
Manawatu District	0	0	0	0	12	3	C	C	C	0	1	35
Palmerston North City	7	19	0	0	0	0	0	0	0	0	0	26
Tararua District	0	0	0	0	0	0	0	0	0	0	0	0
Masterton District	0	4	3	6	17	6	2	1	0	0	0	38
Horowhenua District	0	0	6	0	6	0	0	1	0	0	1	15
Carterton District	0	0	2	0	0	0	0	0	0	0	0	2
South Wairarapa District	0	0	2	0	4	1	0	2	0	0	0	9
Kapiti Coast District	0	0	0	1	0	0	0	0	0	0	0	1
Upper Hutt City	0	0	0	1	0	3	40	10	0	0	0	54
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
Region total	7	82	132	36	57	16	83	68	66	44	7	598
North Island total	88	399	699	455	444	165	255	98	130	69	51	2,853

	Cypress species											Total (ha)
	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+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	0	1	0	6	11	0	0	0	0	0	7	25
Tasman District	6	9	11	21	76	16	1	12	6	0	15	173
Marlborough District	5	15	45	50	43	22	12	0	0	0	4	196
Kaikoura District	0	0	0	8	0	0	0	1	1	0	0	10
Region total	11	25	56	85	130	38	13	13	7	0	26	404
West Coast wood supply region												
Buller District	0	0	0	0	3	0	19	0	0	0	10	32
Grey District	0	0	74	76	22	19	72	40	0	0	12	315
Westland District	0	0	1,562	1,039	1,075	110	272	72	0	0	7	4,137
Region total	0	0	1,636	1,115	1,100	129	363	112	0	0	29	4,484
Canterbury wood supply region												
Hurunui District	0	18	46	32	3	5	1	0	0	0	9	114
Waimakariri District	0	0	0	8	0	12	5	0	0	0	0	25
Christchurch City	0	0	0	0	43	113	0	3	0	0	0	159
Selwyn District	0	0	0	13	9	2	0	0	0	0	0	24
Ashburton District	1	0	0	2	0	6	0	0	0	0	0	9
Timaru District	0	0	0	22	7	5	7	0	0	0	0	41
Mackenzie District	0	0	4	0	16	6	0	0	0	0	0	26
Waimate District	0	0	14	5	3	18	6	0	0	0	0	46
Region total	1	18	64	82	81	167	19	3	0	0	9	444
Otago and Southland wood supply region												
Waitaki District	13	6	7	13	16	3	13	0	0	0	4	75
Dunedin City	0	0	16	14	57	52	43	0	0	0	0	182
Queenstown-Lakes District	0	0	0	0	0	0	0	0	0	0	0	0
Central Otago District	0	0	0	0	0	4	0	0	0	0	0	4
Clutha District	21	152	170	272	234	33	112	6	1	0	5	1,006
Gore District	0	0	0	14	0	0	0	0	0	0	0	14
Southland District	25	67	32	81	51	12	42	49	0	0	0	359
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	59	225	225	394	358	104	210	55	1	0	9	1,640
South Island total	71	268	1,981	1,676	1,669	438	605	183	8	0	73	6,972
New Zealand total	159	667	2,680	2,131	2,113	603	860	281	138	69	124	9,825

Figure 17: Distribution of cypress species forest area by age class and island, as at 1 April 2019

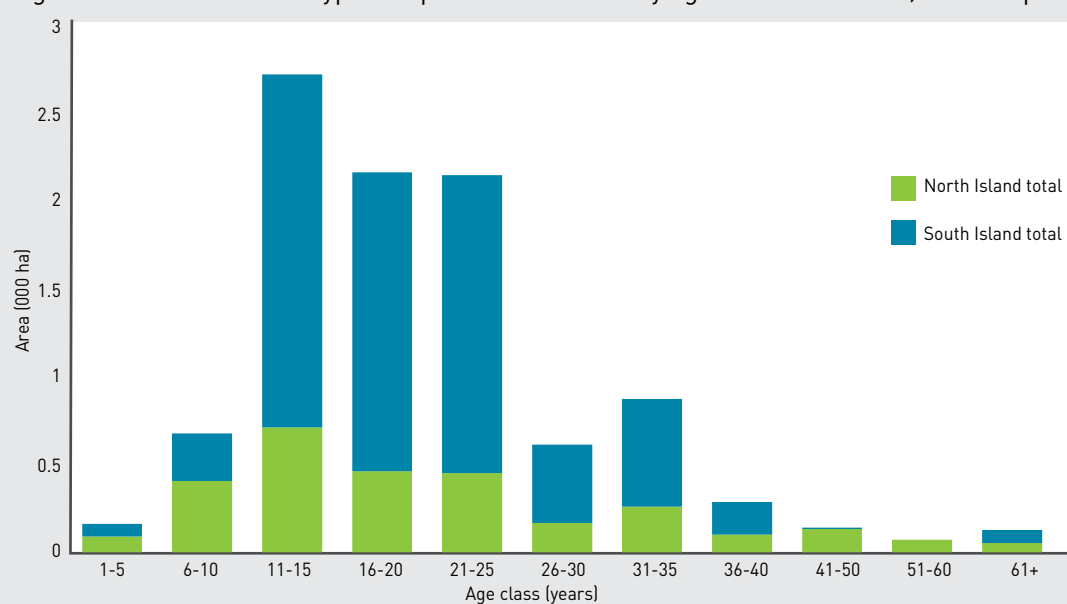


Table 16: Area planted in other softwoods by territorial authority, as at 1 April 2019

	Other softwoods											Total (ha)
	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+ Years (ha)	
Northland wood supply region												
Far North District	7	1	60	95	78	64	31	8	11	16	37	408
Whangarei District	0	1	2	40	116	7	3	1	3	11	16	200
Kaipara District	0	0	2	57	27	19	11	6	0	1	19	142
Auckland Council	0	2	2	61	54	25	23	12	21	13	4	217
Region total	7	4	66	253	275	115	68	27	35	41	76	967
Central North Island wood supply region												
Thames-Coromandel District	0	0	8	8	10	13	12	6	6	2	31	90
Hauraki District	1	2	34	34	0	0	0	1	8	0	0	67
Waikato District	2	4	1	99	7	26	5	0	10	2	7	163
Matamata-Piako District	1	0	0	10	8	5	1	0	0	0	3	28
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	0	23	37	4	1	1	0	0	1	67
Otorohanga District	0	0	0	9	12	37	3	0	5	5	0	71
Waitomo District	0	0	1	27	43	9	3	3	10	14	8	118
Ruapehu District	645	113	13	126	173	64	8	2	86	0	17	1,247
South Waikato District	29	5	0	0	0	3	25	1	3	0	42	108
Taupō District	C	81	16	36	57	32	44	28	71	C	22	458
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Western Bay of Plenty District	15	5	19	39	149	23	1	2	2	0	10	265
Rotorua District	17	88	26	101	91	63	36	62	21	20	38	563
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	C	10	5	8	49	28	16	4	133	C	18	289
Opotiki District	1	4	0	2	2	2	0	0	0	0	0	11
Region total	763	333	83	522	638	309	155	110	355	80	197	3,545
East Coast wood supply region												
Gisborne District	48	199	52	62	71	41	20	78	117	167	8	863
Region total	48	199	52	62	71	41	20	78	117	167	8	863
Hawke's Bay wood supply region												
Wairoa District	26	184	20	66	52	9	0	6	20	29	20	432
Hastings District	5	95	15	42	44	40	31	25	5	5	13	320
Napier City	0	0	0	0	0	0	2	0	0	0	0	2
Central Hawke's Bay District	0	2	1	42	18	9	24	0	6	20	41	163
Region total	31	281	36	150	114	58	57	31	31	54	74	917
Southern North Island wood supply region												
New Plymouth District	17	83	95	148	313	21	4	5	4	0	0	691
Stratford District	249	231	1	11	10	1	1	2	2	31	16	555
South Taranaki District	0	0	C	42	27	16	C	0	C	0	3	99
Whanganui District	0	1	15	125	64	5	14	0	1	1	1	227
Rangitikei District	0	314	212	267	32	36	12	6	3	7	13	902
Manawatu District	0	0	3	49	20	18	9	8	3	0	10	120
Palmerston North City	9	5	0	0	0	1	0	0	0	0	0	15
Tararua District	0	C	2	21	10	2	C	261	C	0	2	307
Masterton District	2	C	C	57	62	35	C	26	C	40	9	292
Horowhenua District	0	C	11	2	15	18	C	0	C	1	0	48
Carterton District	0	0	0	11	9	8	3	1	0	43	0	75
South Wairarapa District	0	0	1	11	6	5	0	1	0	5	0	29
Kapiti Coast District	0	0	0	16	6	6	1	0	0	0	0	29
Upper Hutt City	0	0	0	1	6	13	0	0	0	23	0	43
Porirua City	0	0	0	0	6	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	0	2	2	0	0	0	0	0	4
Region total	277	641	359	761	588	187	95	310	18	151	54	3,441
North Island total	1,126	1,459	596	1,748	1,686	710	395	556	556	493	409	9,733

	Other softwoods											Total (ha)
	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+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	0	0	0	0	1	1	0	24	21	5	5	57
Tasman District	C	C	90	91	175	55	99	233	105	C	21	961
Marlborough District	C	C	39	125	107	44	29	12	25	C	1	393
Kaikoura District	0	0	0	7	0	0	0	1	0	0	0	8
Region total	49	47	129	223	283	100	128	270	151	13	27	1,419
West Coast wood supply region												
Buller District	0	0	0	3	17	10	23	57	105	10	12	237
Grey District	23	0	1	2	6	2	20	12	120	60	0	246
Westland District	2	0	27	164	80	11	7	26	7	25	24	373
Region total	25	0	28	169	103	23	50	95	232	95	36	856
Canterbury wood supply region												
Hurunui District	24	338	574	381	44	26	116	243	237	13	82	2,078
Waimakariri District	44	2	21	5	48	104	2	3	12	1	0	242
Christchurch City	0	7	1	49	517	514	45	3	3	4	6	1,149
Selwyn District	12	0	C	30	160	52	C	0	7	0	0	305
Ashburton District	0	0	C	47	53	20	C	4	0	30	4	230
Timaru District	0	16	26	35	308	22	183	0	5	11	3	609
Mackenzie District	12	33	3	18	563	107	271	7	58	85	70	1,227
Waimate District	0	44	46	62	161	48	69	200	4	6	0	640
Region total	92	440	688	627	1,854	893	785	460	326	150	165	6,480
Otago and Southland wood supply region												
Waitaki District	10	173	17	62	140	47	16	18	0	10	3	495
Dunedin City	155	4	1	3	32	64	11	13	13	4	13	313
Queenstown-Lakes District	0	0	3	5	14	9	10	0	0	3	0	44
Central Otago District	169	124	96	164	378	248	105	96	201	144	6	1,731
Clutha District	173	106	29	247	180	132	96	95	25	24	60	1,167
Gore District	0	0	4	5	59	83	0	0	0	0	0	151
Southland District	293	19	18	85	101	121	68	31	238	4	11	989
Invercargill City	0	0	0	0	2	1	0	0	0	0	0	3
Region total	800	426	168	571	906	705	306	253	477	189	93	4,893
South Island total	966	913	1,012	1,590	3,146	1,721	1,269	1,078	1,186	447	321	13,648
New Zealand total	2,091	2,371	1,608	3,338	4,831	2,431	1,664	1,634	1,742	940	730	23,381

Figure 18: Distribution of other softwoods forest area by age class and island, as at 1 April 2019

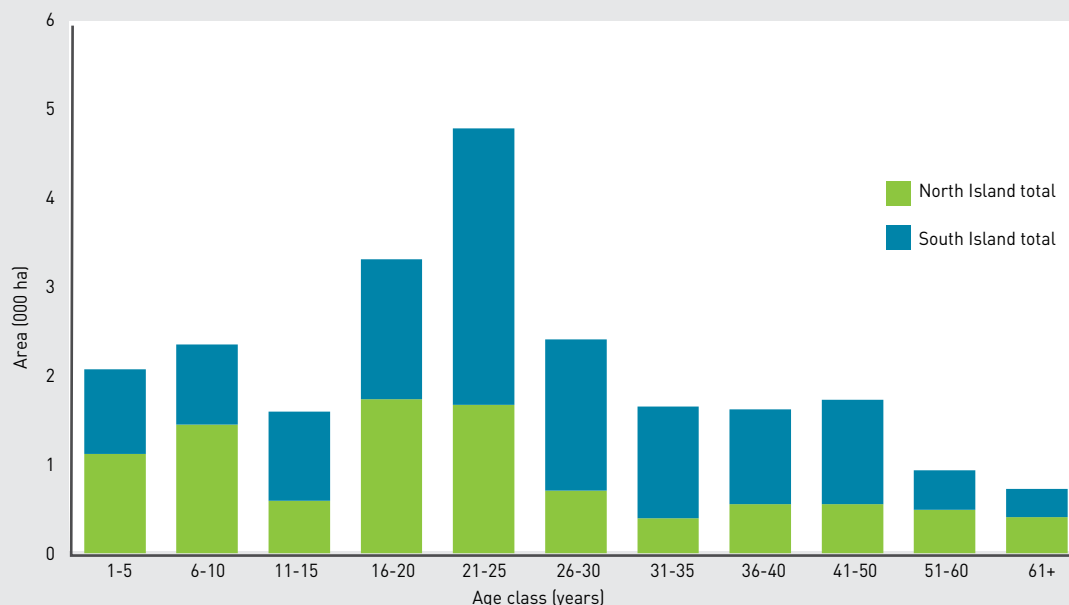


Table 17: Area planted in eucalypt species by territorial authority, as at 1 April 2019

	Eucalypt											Total (ha)
	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+ Years (ha)	
Northland wood supply region												
Far North District	16	5	8	18	11	1	82	44	42	0	7	234
Whangarei District	6	0	0	0	0	41	6	56	13	0	1	123
Kaipara District	13	0	0	0	76	0	3	3	15	0	0	110
Auckland Council	0	1	41	3	4	12	3	9	10	3	0	86
Region total	35	6	49	21	91	54	94	112	80	3	8	553
Central North Island wood supply region												
Thames-Coromandel District	0	0	0	0	0	0	12	32	41	0	9	94
Hauraki District	0	0	0	1	0	0	0	0	0	0	0	1
Waikato District	0	0	0	0	1	0	2	0	0	0	0	3
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	0	4	0	0	0	0	4
Waitomo District	0	62	0	0	0	2	15	13	3	0	1	96
Ruapehu District	16	3	31	2	2	0	0	0	0	0	1	55
South Waikato District	460	1,997	307	341	1	18	22	1	3	1	0	3,151
Taupō District	790	1,104	36	186	421	32	16	11	2	206	1	2,805
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Western Bay of Plenty District	11	0	28	150	16	8	4	27	2	2	74	322
Rotorua District	81	0	0	0	40	1	25	1	1	0	9	158
Kawerau District	0	0	0	20	11	0	0	0	0	0	0	31
Whakatane District	0	0	35	104	46	32	2	0	1	0	0	220
Opotiki District	0	0	0	0	0	0	5	0	0	0	0	5
Region total	1,358	3,166	437	804	538	93	107	85	53	209	95	6,945
East Coast wood supply region												
Gisborne District	89	C	5	10	20	45	23	83	C	1	6	472
Region total	89	C	5	10	20	45	23	83	C	1	6	472
Hawke's Bay wood supply region												
Wairoa District	169	C	8	136	0	0	0	1	C	0	0	428
Hastings District	25	193	3	0	0	3	30	0	7	1	0	262
Napier City	0	0	0	0	0	6	0	0	0	0	0	6
Central Hawke's Bay District	26	C	0	4	0	0	0	3	C	0	0	265
Region total	220	C	11	140	0	9	30	4	C	1	0	961
Southern North Island wood supply region												
New Plymouth District	0	0	0	0	9	0	0	0	0	0	1	10
Stratford District	0	0	0	0	0	0	0	25	0	5	2	32
South Taranaki District	0	3	0	0	0	1	0	0	0	0	0	4
Whanganui District	0	0	0	0	0	0	0	0	0	0	0	0
Rangitikei District	5	6	4	3	7	5	3	2	0	0	0	35
Manawatu District	6	0	0	8	3	0	0	0	0	0	0	17
Palmerston North City	8	2	0	0	0	0	0	0	0	0	0	10
Taranaki District	0	0	0	0	0	0	0	0	0	0	0	0
Masterton District	36	28	4	4	0	2	2	0	0	0	0	77
Horowhenua District	4	0	0	0	1	0	19	0	0	0	0	24
Carterton District	18	0	0	0	0	0	0	0	0	0	0	18
South Wairarapa District	0	0	0	0	0	7	1	3	120	0	0	131
Kapiti Coast District	0	0	0	0	0	0	0	0	0	0	0	0
Upper Hutt City	0	0	0	0	0	0	1	14	0	0	0	15
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
Region total	77	39	8	15	20	15	26	44	120	5	3	372
North Island total	1,779	3,914	510	990	669	216	280	328	286	219	112	9,303

	Eucalypt											Total (ha)
	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+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	0	0	0	0	0	0	0	17	0	0	0	17
Tasman District	0	0	0	0	7	2	33	77	145	0	3	267
Marlborough District	57	47	28	1	0	4	20	31	27	0	1	216
Kaikoura District	0	0	0	0	0	0	1	0	0	0	0	1
Region total	57	47	28	1	7	6	54	125	172	0	4	501
West Coast wood supply region												
Buller District	0	0	0	0	0	0	0	239	109	0	7	355
Grey District	10	0	0	0	1	2	0	0	70	1	0	84
Westland District	0	0	0	0	3	0	1	21	18	0	0	43
Region total	10	0	0	0	4	2	1	260	197	1	7	482
Canterbury wood supply region												
Hurunui District	0	0	0	14	0	0	1	0	0	0	0	15
Waimakariri District	6	0	0	0	0	0	0	0	0	0	0	6
Christchurch City	0	0	0	0	29	7	3	0	0	0	10	49
Selwyn District	0	0	0	2	0	1	1	5	0	0	0	9
Ashburton District	1	0	0	0	9	3	3	0	0	0	0	16
Timaru District	0	0	0	3	1	9	0	0	0	0	0	13
Mackenzie District	0	0	0	0	0	0	0	0	0	0	0	0
Waimate District	0	0	0	0	0	0	0	2	0	0	0	2
Region total	7	0	0	19	39	20	8	7	0	0	10	110
Otago and Southland wood supply region												
Waitaki District	2	45	0	0	0	5	63	9	1	0	1	126
Dunedin City	2	0	0	0	4	13	31	17	3	0	0	70
Queenstown-Lakes District	0	0	0	0	0	0	0	0	0	0	0	0
Central Otago District	0	0	0	0	1	0	1	6	21	0	0	29
Clutha District	57	32	23	509	7	5	84	105	27	1	9	859
Gore District	37	0	97	14	246	35	0	0	0	0	0	429
Southland District	1,215	1,734	995	2,808	1,819	1,044	185	48	19	0	1	9,868
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	1,313	1,811	1,115	3,331	2,077	1,102	364	185	71	1	11	11,381
South Island total	1,387	1,858	1,143	3,351	2,127	1,130	427	577	440	2	32	12,474
New Zealand total	3,165	5,772	1,653	4,341	2,796	1,346	707	905	726	221	144	21,777

Figure 19: Distribution of eucalypt species forest area by age class and island, as at 1 April 2019

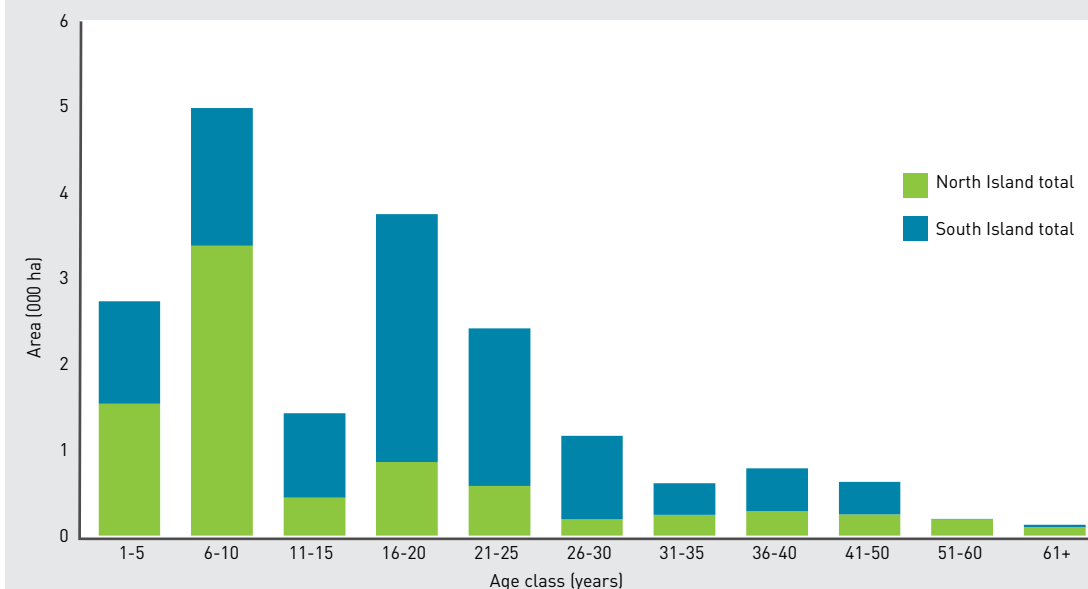


Table 18: Area planted in other hardwoods by territorial authority, as at 1 April 2019

	Other hardwoods											Total (ha)
	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+ Years (ha)	
Northland wood supply region												
Far North District	55	17	55	345	157	50	74	84	50	5	1	893
Whangarei District	9	0	0	51	167	84	9	18	8	0	2	348
Kaipara District	0	0	11	104	187	37	7	13	9	5	0	373
Auckland Council	0	1	14	115	243	88	77	81	49	10	9	687
Region total	64	18	80	615	754	259	167	196	116	20	12	2,301
Central North Island wood supply region												
Thames-Coromandel District	0	0	0	3	21	16	4	7	7	0	2	60
Hauraki District	4	16	25	1	17	6	0	0	0	0	6	75
Waikato District	0	0	5	44	30	24	18	0	5	0	1	127
Matamata-Piako District	0	0	0	6	5	13	0	1	0	0	0	25
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	0	0	114	85	3	2	9	0	0	0	213
Otorohanga District	0	0	6	11	7	13	37	0	0	0	2	76
Waitomo District	0	0	0	17	35	15	24	18	2	0	0	111
Ruapehu District	1	0	1	0	5	4	12	0	1	0	0	24
South Waikato District	7	8	21	15	38	6	2	3	0	2	0	102
Taupō District	C	17	5	66	110	17	11	5	6	C	0	321
Tauranga District	0	0	0	3	8	1	0	1	0	0	0	13
Western Bay of Plenty District	0	0	5	50	58	51	15	44	2	1	0	226
Rotorua District	0	8	10	150	203	51	88	8	21	5	9	553
Kawerau District	42	0	0	0	3	0	0	0	0	0	0	45
Whakatane District	C	0	3	74	74	38	17	3	2	C	0	254
Opotiki District	0	1	5	15	6	3	0	0	0	0	0	30
Region total	174	50	86	569	705	261	230	99	46	15	20	2,255
East Coast wood supply region												
Gisborne District	32	C	31	16	78	89	70	24	C	7	8	795
Region total	32	C	31	16	78	89	70	24	C	7	8	795
Hawke's Bay wood supply region												
Wairoa District	5	C	7	12	0	2	10	0	C	3	0	100
Hastings District	4	108	3	32	28	14	31	18	14	2	4	258
Napier City	0	0	0	0	0	0	2	0	0	0	0	2
Central Hawke's Bay District	1	C	0	11	38	9	65	1	C	3	4	139
Region total	10	C	10	55	66	25	108	19	C	8	8	499
Southern North Island wood supply region												
New Plymouth District	0	1	0	17	14	10	6	1	0	0	0	49
Stratford District	29	19	3	8	24	29	1	1	0	2	0	116
South Taranaki District	0	0	C	17	19	16	C	3	C	0	0	365
Whanganui District	0	1	3	34	13	28	4	1	0	0	6	90
Rangitikei District	30	0	1	40	43	41	4	2	6	38	6	211
Manawatu District	0	0	1	14	25	24	24	16	0	0	1	105
Palmerston North City	0	0	0	8	18	36	0	0	0	0	0	62
Taranua District	0	C	2	20	9	10	C	3	C	3	0	351
Masterton District	25	C	C	18	21	8	C	9	C	0	0	114
Horowhenua District	0	C	0	1	32	37	C	1	C	2	13	89
Carterton District	26	0	0	1	0	11	2	10	14	0	0	64
South Wairarapa District	0	0	1	0	9	55	29	9	0	0	0	103
Kapiti Coast District	0	0	0	5	12	13	0	1	0	0	0	31
Upper Hutt City	0	0	0	0	2	1	0	6	0	0	0	9
Porirua City	0	0	0	0	0	0	2	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
Region total	110	316	329	183	241	319	100	63	29	45	26	1,760
North Island total	390	980	536	1,438	1,844	953	675	401	225	95	74	7,610

	Other hardwoods											Total (ha)
	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+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	0	0	0	0	4	5	0	0	2	0	2	13
Tasman District	C	C	3	17	109	61	42	26	52	C	18	366
Marlborough District	C	C	6	17	86	39	27	29	29	C	6	246
Kaikoura District	0	0	0	0	0	0	1	0	3	0	0	4
Region total	2	7	9	34	199	105	70	55	86	37	26	629
West Coast wood supply region												
Buller District	0	0	0	1	7	3	53	53	0	0	1	118
Grey District	2	0	98	9	4	8	16	29	3	1	7	177
Westland District	0	0	152	33	274	654	555	92	1	0	73	1,834
Region total	2	0	250	43	285	665	624	174	4	1	81	2,129
Canterbury wood supply region												
Hurunui District	0	0	3	18	29	11	11	3	1	0	0	76
Waimakariri District	0	0	0	0	40	67	16	0	0	0	0	123
Christchurch City	0	0	3	321	361	237	19	22	0	0	0	963
Selwyn District	0	0	0	5	20	28	4	1	1	3	0	62
Ashburton District	0	0	0	3	12	9	6	0	0	0	0	30
Timaru District	0	0	0	8	35	9	12	0	5	0	10	79
Mackenzie District	0	0	0	4	32	3	2	3	0	0	20	64
Waimate District	0	0	3	0	23	23	2	0	0	6	1	58
Region total	0	0	9	359	552	387	72	29	7	9	31	1,455
Otago and Southland wood supply region												
Waitaki District	0	24	0	2	31	29	12	3	5	0	3	109
Dunedin City	0	0	0	3	12	27	13	0	0	0	0	55
Queenstown-Lakes District	0	0	0	0	0	0	3	0	0	0	0	3
Central Otago District	0	6	0	7	26	40	8	0	1	3	1	92
Clutha District	8	0	0	13	39	21	30	25	8	3	13	160
Gore District	0	0	0	6	2	6	2	0	0	0	0	16
Southland District	2	3	10	23	97	58	18	8	1	1	2	223
Invercargill City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	10	33	10	54	207	181	86	36	15	7	19	658
South Island total	14	40	278	490	1,243	1,338	852	294	112	54	157	4,871
New Zealand total	404	1,020	814	1,928	3,087	2,291	1,527	694	337	149	231	12,481

Figure 20: Distribution of other hardwoods forest area by age class and island, as at 1 April 2019

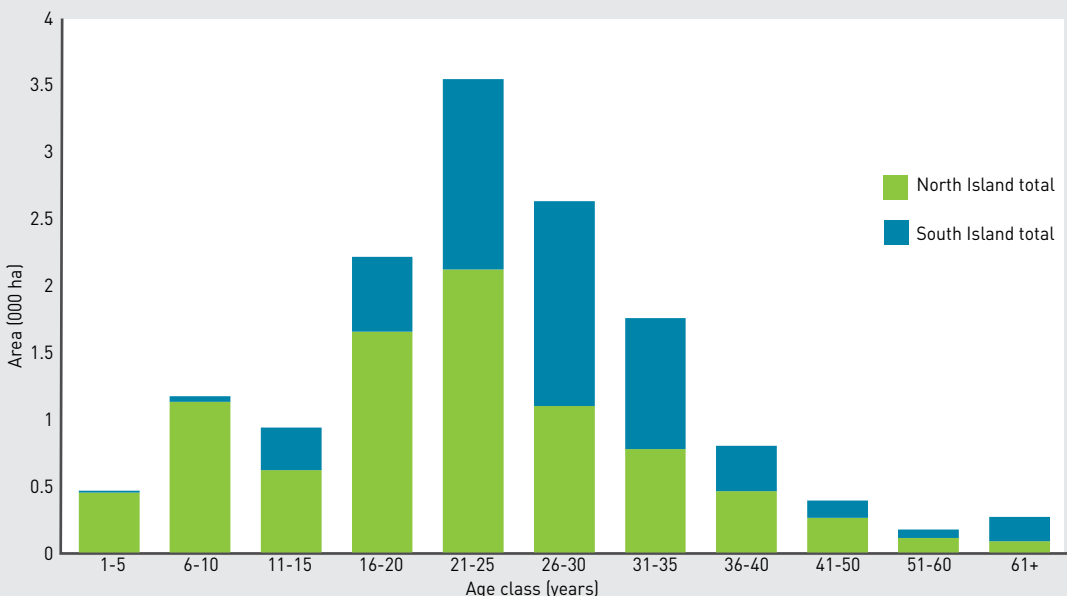


Table 19: Area of radiata pine pruned with production thinning by territorial authority, as at 1 April 2019

	Age class (years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61+ Years (ha)	
Northland wood supply region												
Far North District	0	73	123	512	1,705	1,009	3,835	639	84	0	0	7,980
Whangarei District	0	C	20	299	1,102	C	151	101	260	0	1	2,862
Kaipara District	113	70	15	122	2,071	492	80	60	45	0	4	3,073
Auckland Council	0	C	165	1,024	2,064	C	188	128	437	37	0	4,903
Region total	113	287	323	1,957	6,942	3,146	4,254	928	826	37	5	18,818
Central North Island wood supply region												
Thames-Coromandel District	0	C	C	73	290	154	C	C	74	0	0	834
Hauraki District	0	C	0	116	374	178	C	23	10	0	0	725
Waikato District	0	37	6	2,303	496	458	51	26	18	0	0	3,395
Matamata-Piako District	0	0	0	54	97	28	12	19	6	0	0	216
Hamilton City	0	0	0	0	0	0	0	1	0	0	0	1
Waipa District	0	97	0	159	449	93	15	40	7	0	0	860
Otorohanga District	0	0	21	110	261	265	19	13	2	0	0	691
Waitomo District	0	C	C	351	1,953	362	C	54	12	0	0	3,030
Ruapehu District	0	98	91	510	3,360	545	20	79	29	0	0	4,732
South Waikato District	0	C	C	20	76	96	C	C	2	0	0	268
Taupō District	8	415	2,175	5,037	2,190	3,190	3,265	326	C	C	C	16,621
Tauranga District	0	0	0	1	8	0	0	5	0	0	0	14
Western Bay of Plenty District	66	C	73	379	777	1,093	C	C	8	0	0	2,635
Rotorua District	0	36	921	819	846	988	113	149	C	C	C	3,922
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	0	0	950	1,432	544	1,318	21	37	21	C	C	4,328
Opotiki District	0	5	0	3	6	34	0	11	0	0	0	59
Region total	74	953	4,365	11,366	11,727	8,802	3,861	924	245	6	8	42,331
East Coast wood supply region												
Gisborne District	0	27	36	523	2,154	1,346	178	191	51	0	0	4,506
Region total	0	27	36	523	2,154	1,346	178	191	51	0	0	4,506
Hawke's Bay wood supply region												
Wairoa District	179	105	47	67	320	507	9	17	10	0	0	1,261
Hastings District	717	211	54	266	1,542	1,752	256	251	102	2	1	5,154
Napier City	0	0	0	0	6	0	2	0	0	0	0	8
Central Hawke's Bay District	217	174	55	246	1,968	1,104	158	284	126	0	0	4,332
Region total	1,113	490	156	579	3,836	3,363	425	552	238	2	1	10,755
Southern North Island wood supply region												
New Plymouth District	13	2	4	137	312	183	154	38	21	1	0	864
Stratford District	0	0	13	106	517	488	45	18	6	0	1	1,194
South Taranaki District	0	243	51	600	1,882	469	158	190	51	2	3	3,649
Whanganui District	94	9	270	1,625	3,423	1,145	739	30	34	22	0	7,392
Rangitikei District	49	93	109	593	2,045	1,384	189	109	121	4	0	4,694
Manawatu District	44	64	43	316	829	761	184	184	41	4	0	2,470
Palmerston North City	C	C	102	117	196	135	25	1	69	0	0	647
Tararua District	C	482	46	148	759	858	150	197	C	0	0	2,740
Masterton District	C	C	33	230	494	659	26	27	C	0	4	1,633
Horowhenua District	0	0	21	151	490	897	142	147	25	8	2	1,883
Carterton District	0	0	4	29	40	52	3	10	5	0	0	143
South Wairarapa District	0	29	31	192	125	76	15	24	13	0	0	505
Kapiti Coast District	36	0	0	358	426	185	50	18	12	0	0	1,085
Upper Hutt City	0	0	0	18	168	25	42	33	11	5	24	326
Porirua City	0	0	0	0	69	53	110	61	0	0	0	293
Wellington City	0	68	0	0	23	77	2	2	0	0	0	172
Lower Hutt City	0	0	0	0	46	0	3	15	14	0	0	78
Region total	352	1,029	727	4,621	11,843	7,447	2,037	1,104	529	46	34	29,767
North Island total	1,651	2,785	5,607	19,046	36,503	24,104	10,755	3,699	1,889	91	48	106,177

	Age class (years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	0	0	0	0	94	1	0	0	0	0	0	95
Tasman District	0	15	81	321	1,387	876	262	126	55	0	1	3,124
Marlborough District	355	201	174	704	3,198	1,538	572	127	59	0	0	6,927
Kaikoura District	0	0	0	27	78	45	4	7	0	0	0	161
Region total	355	216	255	1,052	4,757	2,460	838	260	114	0	1	10,307
West Coast wood supply region												
Buller District	0	0	0	12	28	10	2	0	0	0	0	52
Grey District	20	0	90	7	115	69	32	79	24	0	0	436
Westland District	0	0	0	24	56	7	23	0	0	0	0	110
Region total	20	0	90	43	199	86	57	79	24	0	0	598
Canterbury wood supply region												
Hurunui District	C	C	C	434	1,500	521	257	149	83	55	3	3,155
Waimakariri District	0	0	17	43	497	773	79	33	2	26	0	1,470
Christchurch City	12	8	1	336	921	164	54	45	10	0	0	1,551
Selwyn District	C	C	C	63	432	237	125	74	33	0	0	970
Ashburton District	C	C	C	21	206	55	18	42	2	26	0	382
Timaru District	12	12	7	144	578	260	113	58	33	4	0	1,221
Mackenzie District	0	0	4	33	197	51	31	33	1	0	0	350
Waimate District	0	0	8	86	325	95	110	28	2	0	0	654
Region total	24	55	173	1,160	4,656	2,156	787	462	166	111	3	9,752
Otago and Southland wood supply region												
Waitaki District	C	C	11	160	813	354	44	140	36	0	0	1,563
Dunedin City	0	25	14	17	511	396	85	0	0	0	0	1,048
Queenstown-Lakes District	0	0	0	0	15	0	10	31	55	0	0	111
Central Otago District	0	0	40	22	61	55	35	64	4	0	37	318
Clutha District	42	C	53	439	2,282	1,229	94	56	C	0	0	4,280
Gore District	0	0	0	75	561	54	4	19	19	0	0	732
Southland District	C	C	205	1,974	2,011	395	182	230	C	13	0	5,365
Invercargill City	0	0	3	0	49	14	0	1	0	0	0	67
Region total	86	166	326	2,687	6,303	2,497	454	541	374	13	37	13,484
South Island total	485	437	844	4,943	15,915	7,199	2,136	1,342	678	124	41	34,142
New Zealand total	2,136	3,221	6,451	23,988	52,418	31,303	12,890	5,040	2,567	215	89	140,318

Figure 21: Distribution of radiata pine pruned with production thinning forest area by age class and island, as at 1 April 2019

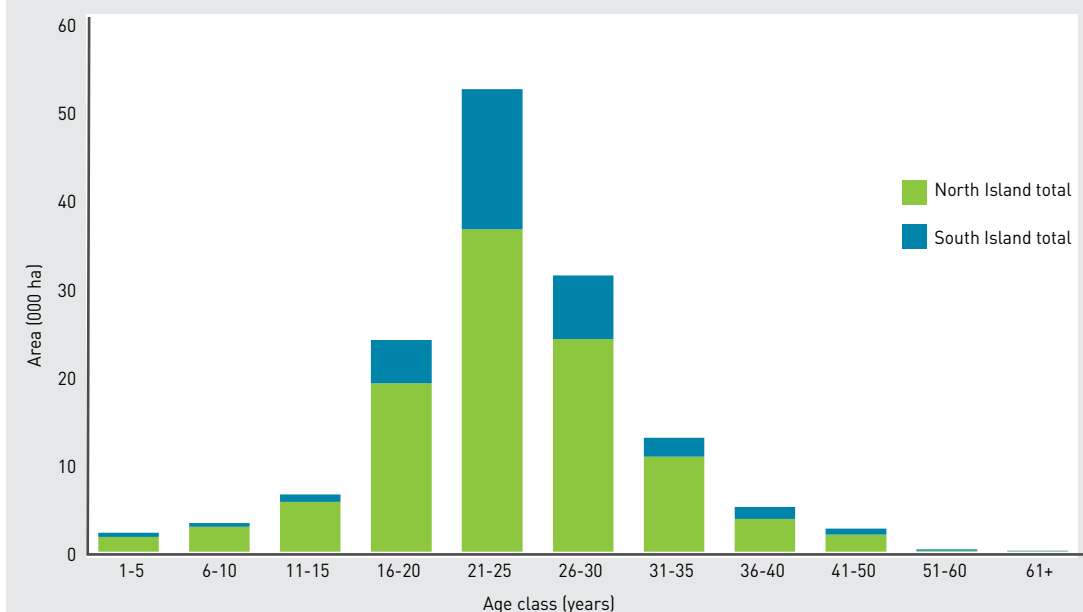


Table 20: Area of radiata pine unpruned with production thinning by territorial authority, as at 1 April 2019

	Age class (years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61+ Years (ha)	
Northland wood supply region												
Far North District	948	1,684	2,073	1,310	167	3	24	56	673	0	0	6,938
Whangarei District	0	0	0	0	0	1	0	0	3	0	0	4
Kaipara District	0	0	2	25	26	0	0	0	0	0	0	53
Auckland Council	38	17	21	59	365	694	14	0	0	0	0	1,208
Region total	986	1,701	2,096	1,394	558	698	38	56	676	0	0	8,203
Central North Island wood supply region												
Thames-Coromandel District	4	29	115	106	105	12	0	0	40	0	0	411
Hauraki District	0	0	0	0	0	0	0	0	0	0	0	0
Waikato District	0	0	0	1	6	7	0	0	0	0	0	14
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	28	23	23	0	0	0	0	0	74
Otorohanga District	0	0	5	14	5	7	0	0	0	0	0	31
Waitomo District	7	0	8	218	404	152	0	0	0	0	0	789
Ruapehu District	248	44	155	578	514	874	57	0	0	0	0	2,470
South Waikato District	0	0	1	4	19	9	0	0	0	0	0	33
Taupō District	13,618	3,903	202	189	391	577	383	0	4	1	0	19,268
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Western Bay of Plenty District	9	0	1	97	86	24	0	0	0	0	0	217
Rotorua District	935	191	53	12	98	65	0	0	0	0	1	1,355
Kawerau District	0	0	0	0	0	0	0	0	0	0	0	0
Whakatane District	1,234	838	477	92	37	85	0	0	0	0	0	2,763
Opotiki District	0	0	1	19	5	1	27	13	0	0	0	66
Region total	16,055	5,005	1,018	1,358	1,693	1,836	467	13	44	1	1	27,491
East Coast wood supply region												
Gisborne District	74	662	39	1	142	266	66	48	32	0	0	1,330
Region total	74	662	39	1	142	266	66	48	32	0	0	1,330
Hawke's Bay wood supply region												
Wairoa District	0	0	5	3	234	0	0	33	0	0	0	275
Hastings District	75	207	4	16	195	375	0	0	7	0	0	879
Napier City	0	0	0	0	0	0	0	0	0	0	0	0
Central Hawke's Bay District	0	0	0	3	26	4	15	6	4	0	0	58
Region total	75	207	9	22	455	379	15	39	11	0	0	1,212
Southern North Island wood supply region												
New Plymouth District	0	2	0	6	72	0	0	0	0	0	0	80
Stratford District	0	0	0	0	0	0	0	0	0	0	0	0
South Taranaki District	0	0	0	0	0	12	3	0	2	0	0	17
Whanganui District	0	57	85	0	126	80	0	0	0	0	0	348
Rangitikei District	0	226	525	850	644	285	8	0	9	0	2	2,549
Manawatu District	0	0	16	1	0	10	0	8	0	0	0	35
Palmerston North City	0	0	0	0	2	40	0	0	0	0	0	42
Tararua District	0	0	9	17	124	86	25	17	6	0	0	284
Masterton District	18	18	91	96	189	40	26	8	0	0	0	486
Horowhenua District	58	217	233	384	231	131	0	1	0	15	20	1,290
Carterton District	0	0	0	1	7	0	3	0	0	0	0	11
South Wairarapa District	0	44	10	228	99	18	13	3	0	0	0	415
Kapiti Coast District	0	0	0	0	7	3	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	0	28	0	0	8	0	0	0	0	36
Lower Hutt City	0	0	0	0	0	0	0	0	0	0	0	0
Region total	76	564	969	1,611	1,501	705	86	37	17	15	22	5,603
North Island total	17,266	8,139	4,131	4,386	4,349	3,884	672	193	780	16	23	43,839

	Age class (years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	0	0	0	0	12	0	0	0	0	0	0	12
Tasman District	C	24	131	183	341	182	9	155	14	C	0	1,100
Marlborough District	C	3	10	49	273	214	51	77	154	C	0	857
Kaikoura District	0	0	0	0	1	5	0	0	0	0	0	6
Region total	69	27	141	232	627	401	60	232	168	18	0	1,975
West Coast wood supply region												
Buller District	0	0	0	0	0	0	0	0	0	0	0	0
Grey District	0	0	0	4	1	0	0	0	0	0	0	5
Westland District	0	0	0	0	0	0	0	0	4	0	0	4
Region total	0	0	0	4	1	0	0	0	4	0	0	9
Canterbury wood supply region												
Hurunui District	C	C	C	92	308	136	31	55	4	0	0	940
Waimakariri District	0	0	2	10	110	71	21	2	8	6	2	232
Christchurch City	0	0	0	17	100	17	0	7	0	1	0	142
Selwyn District	C	C	C	204	292	28	10	3	20	0	1	560
Ashburton District	C	C	C	1	47	24	0	0	37	0	0	112
Timaru District	0	0	0	1	22	56	25	6	2	0	0	112
Mackenzie District	0	121	1	25	26	15	15	10	33	6	0	252
Waimate District	0	0	0	60	121	31	7	2	2	0	0	223
Region total	7	360	76	410	1,026	378	109	85	106	13	3	2,573
Otago and Southland wood supply region												
Waitaki District	0	0	1	1	83	16	15	45	0	0	0	161
Dunedin City	0	0	0	0	0	5	0	0	0	0	0	5
Queenstown-Lakes District	0	0	0	0	1	0	0	0	0	0	0	1
Central Otago District	0	0	0	0	3	0	0	0	0	0	0	3
Clutha District	0	0	588	647	77	57	50	9	0	0	0	1,428
Gore District	0	0	0	4	5	35	0	0	0	0	0	44
Southland District	0	0	233	144	150	60	5	15	65	11	0	683
Invercargill City	0	0	0	5	6	0	0	0	0	0	0	11
Region total	0	0	822	801	325	173	70	69	65	11	0	2,336
South Island total	76	387	1,040	1,447	1,979	952	239	386	343	42	3	6,894
New Zealand total	17,342	8,526	5,171	5,833	6,328	4,836	911	579	1,123	58	26	50,733

Figure 22: Distribution of radiata pine unpruned with production thinning forest area by age class and island, as at 1 April 2019

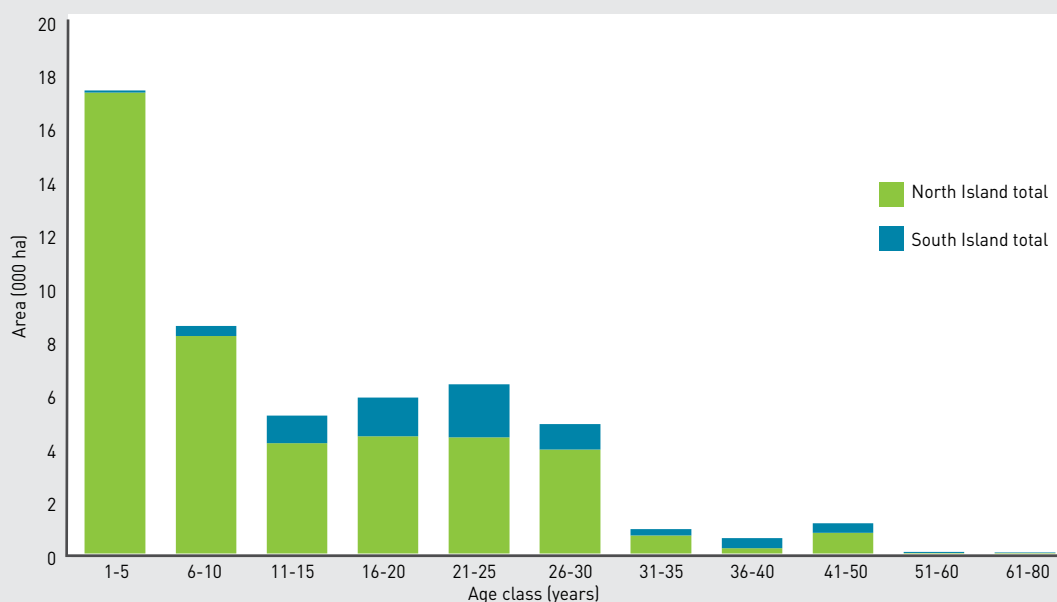


Table 21: Area of radiata pine pruned without production thinning by territorial authority, as at 1 April 2019

	Age class (years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61+ Years (ha)	
Northland wood supply region												
Far North District	416	799	1,475	2,669	9,854	1,898	2,104	571	109	4	0	19,899
Whangarei District	94	C	130	694	3,226	C	384	105	19	0	2	5,782
Kaipara District	379	24	512	1,188	3,840	819	274	44	40	13	0	7,132
Auckland Council	293	C	1,001	1,781	2,894	C	125	372	465	2	2	8,357
Region total	1,181	1,814	3,118	6,332	19,813	4,277	2,887	1,092	633	19	4	41,170
Central North Island wood supply region												
Thames-Coromandel District	0	C	C	101	572	150	C	C	63	0	0	1,714
Hauraki District	29	C	0	138	475	413	C	0	0	0	0	1,086
Waikato District	372	161	31	1,338	2,529	683	120	76	28	0	54	5,392
Matamata-Piako District	45	0	1	46	76	190	1	7	5	0	0	371
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	0	112	54	219	159	124	7	15	2	0	0	692
Otorohanga District	77	120	227	782	448	262	13	4	20	0	0	1,953
Waitomo District	C	C	C	3,166	5,160	869	C	149	2	0	0	9,928
Ruapehu District	C	C	274	1,623	4,447	1,354	725	841	3	0	0	9,948
South Waikato District	23	C	C	623	714	1,291	C	C	8	0	0	2,889
Taupō District	844	10,330	16,558	10,387	10,368	2,324	1,904	471	C	C	C	53,237
Tauranga District	0	0	0	10	57	0	16	0	0	0	0	83
Western Bay of Plenty District	294	C	61	1,706	3,015	1,496	C	C	197	0	0	7,317
Rotorua District	559	1,362	1,107	3,164	5,640	1,769	207	42	C	C	C	13,872
Kawerau District	0	0	0	0	0	6	0	0	0	0	0	6
Whakatane District	285	1,693	1,742	3,692	13,610	2,819	171	189	243	C	C	24,445
Opotiki District	88	337	92	798	296	347	905	129	100	0	0	3,092
Region total	2,815	15,107	20,656	27,793	47,567	14,097	4,530	2,663	709	13	76	136,024
East Coast wood supply region												
Gisborne District	10,922	10,426	3,694	15,664	32,197	17,492	3,822	1,519	487	9	0	96,231
Region total	10,922	10,426	3,694	15,664	32,197	17,492	3,822	1,519	487	9	0	96,231
Hawke's Bay wood supply region												
Wairoa District	2,984	5,568	4,913	6,753	17,098	3,647	192	50	203	0	1	41,409
Hastings District	2,195	1,531	2,772	6,516	8,442	5,179	91	103	47	8	1	26,885
Napier City	0	0	0	0	46	6	0	0	0	0	0	52
Central Hawke's Bay District	50	564	443	946	4,246	650	74	18	51	9	0	7,051
Region total	5,229	7,663	8,128	14,215	29,832	9,482	357	171	301	17	2	75,397
Southern North Island wood supply region												
New Plymouth District	2	122	70	537	468	234	46	6	23	0	0	1,508
Stratford District	3	C	44	128	1,657	302	C	31	0	0	0	2,455
South Taranaki District	C	C	C	423	1,511	1,074	74	53	2	0	0	3,273
Whanganui District	615	724	951	1,165	4,849	2,076	535	42	12	4	64	11,036
Rangitikei District	117	C	75	1,300	4,322	595	C	89	34	0	0	6,771
Manawatu District	0	30	39	276	784	409	63	59	65	0	0	1,725
Palmerston North City	C	C	0	3	93	184	3	20	25	0	0	726
Tararua District	C	C	541	371	1,147	865	C	43	C	3	0	4,989
Masterton District	C	C	C	3,765	6,935	4,500	1,748	336	C	9	6	23,640
Horowhenua District	251	80	133	149	206	486	59	0	26	0	0	1,390
Carterton District	1,366	1,120	329	1,414	2,345	513	73	57	70	0	0	7,287
South Wairarapa District	100	726	149	582	1,671	449	40	25	6	0	0	3,748
Kapiti Coast District	139	70	67	189	364	419	117	48	0	0	0	1,412
Upper Hutt City	0	1	144	315	429	88	14	5	14	0	1	1,011
Porirua City	0	13	40	99	45	159	40	4	5	0	0	405
Wellington City	0	0	0	8	217	66	17	0	0	0	0	308
Lower Hutt City	0	0	0	10	26	0	0	42	3	0	0	81
Region total	5,204	7,180	4,418	10,734	27,068	12,419	3,178	860	618	16	71	71,766
North Island total	25,352	42,189	40,013	74,739	156,476	57,766	14,774	6,305	2,747	74	153	420,588

	Age class (years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	67	56	9	51	250	273	40	26	1	0	0	773
Tasman District	C	436	463	2,941	6,736	2,702	254	160	68	C	0	14,049
Marlborough District	C	737	1,681	2,876	8,908	4,858	1,374	385	275	C	0	23,683
Kaikoura District	21	26	9	86	495	81	6	2	39	0	0	765
Region total	2,891	1,255	2,162	5,954	16,389	7,914	1,674	573	383	75	0	39,270
West Coast wood supply region												
Buller District	0	C	0	46	459	234	163	17	C	0	0	942
Grey District	0	C	636	1,660	1,007	633	180	77	C	60	0	4,339
Westland District	0	0	248	903	1,661	99	46	14	82	0	0	3,053
Region total	0	33	884	2,609	3,127	966	389	108	158	60	0	8,334
Canterbury wood supply region												
Hurunui District	121	98	146	866	1,983	588	285	119	119	7	0	4,331
Waimakariri District	88	242	62	176	313	476	28	13	0	0	0	1,397
Christchurch City	132	41	98	226	1,630	753	232	97	52	0	1	3,262
Selwyn District	10	0	10	112	552	138	53	6	2	0	0	883
Ashburton District	39	55	23	68	232	69	7	0	3	0	0	496
Timaru District	114	130	232	321	872	651	475	9	1	0	0	2,805
Mackenzie District	31	0	42	127	522	331	20	46	14	4	0	1,138
Waimate District	40	140	163	294	2,038	481	75	81	0	0	0	3,312
Region total	575	705	776	2,190	8,142	3,487	1,175	371	191	11	1	17,623
Otago and Southland wood supply region												
Waitaki District	C	C	190	2,535	3,179	699	551	107	75	36	11	8,632
Dunedin City	1,758	321	559	752	1,886	1,166	324	150	38	0	0	6,954
Queenstown-Lakes District	0	0	0	0	6	0	11	2	0	3	1	23
Central Otago District	0	0	5	124	514	101	89	39	65	0	0	937
Clutha District	3,006	C	2,100	5,919	11,197	4,265	586	262	C	12	2	29,173
Gore District	0	0	1	76	197	126	13	0	1	0	0	414
Southland District	C	C	1,094	2,152	5,305	2,308	79	181	C	1	0	14,517
Invercargill City	156	162	11	51	84	36	33	41	1	2	0	577
Region total	6,965	4,649	3,960	11,609	22,368	8,701	1,686	782	439	54	14	61,227
South Island total	10,431	6,643	7,781	22,362	50,027	21,067	4,924	1,834	1,171	200	15	126,454
New Zealand total	35,783	48,832	47,795	97,100	206,503	78,833	19,697	8,139	3,919	274	168	547,042

Figure 23: Distribution of radiata pine pruned without production thinning forest area by age class and island, as at 1 April 2019

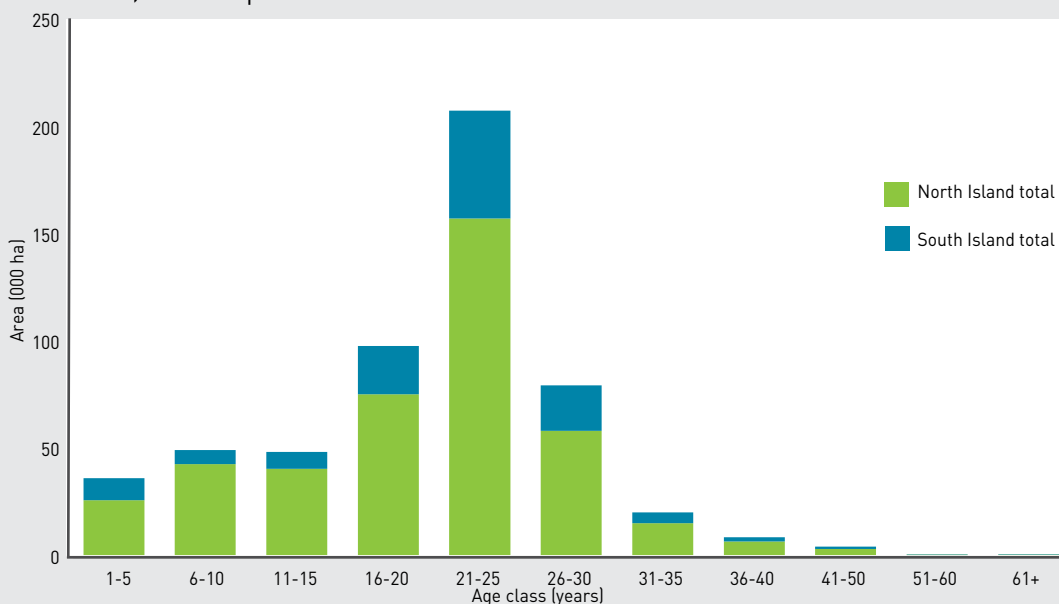
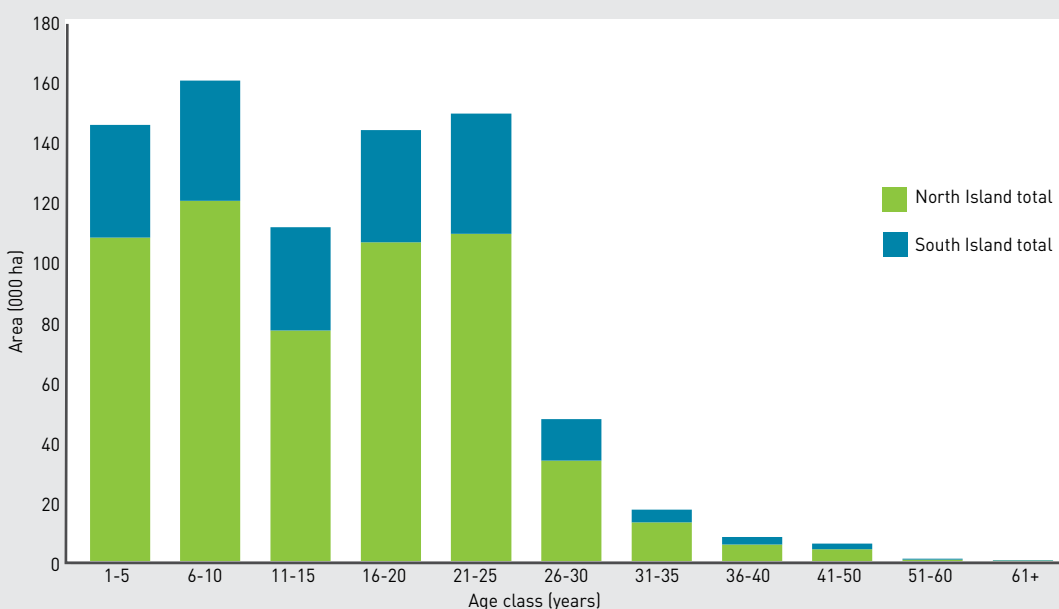


Table 22: Area of radiata pine unpruned without production thinning by territorial authority, as at 1 April 2019

	Age class (years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61+ Years (ha)	
Northland wood supply region												
Far North District	11,215	13,852	5,760	5,541	4,580	1,953	1,538	562	326	14	0	45,341
Whangarei District	6,223	4,988	2,002	2,936	3,378	683	432	123	81	1	0	20,847
Kaipara District	7,502	4,491	1,375	2,872	3,311	2,550	840	200	96	12	3	23,252
Auckland Council	1,927	3,334	3,794	7,617	5,712	1,151	181	183	57	20	12	23,988
Region total	26,867	26,665	12,931	18,966	16,981	6,337	2,991	1,068	560	47	15	113,428
Central North Island wood supply region												
Thames-Coromandel District	3,266	4,865	4,570	3,645	2,499	713	227	278	245	36	22	20,366
Hauraki District	329	291	136	161	448	67	1	3	6	0	0	1,442
Waikato District	857	1,071	600	1,253	2,542	763	100	53	8	20	0	7,267
Matamata-Piako District	81	118	240	31	57	42	30	11	56	0	0	666
Hamilton City	0	0	0	0	0	0	0	0	0	0	0	0
Waipa District	15	30	23	49	96	115	6	4	1	0	2	341
Otorohanga District	45	40	41	568	734	289	85	3	5	0	0	1,810
Waitomo District	C	C	3,233	1,942	2,165	367	161	148	12	0	0	9,577
Ruapehu District	C	C	1,480	1,868	11,573	1,425	1,399	193	99	1	0	32,269
South Waikato District	8,568	5,638	8,943	13,761	12,086	2,949	15	9	24	3	78	52,074
Taupō District	20,161	17,436	7,776	15,487	13,134	4,888	755	83	34	37	34	79,825
Tauranga District	0	0	0	0	0	0	0	0	0	0	0	0
Western Bay of Plenty District	2,935	1,841	2,309	2,222	1,049	285	50	56	7	2	3	10,759
Rotorua District	4,843	5,618	6,774	7,553	2,440	670	48	47	19	2	5	28,019
Kawerau District	43	0	8	20	0	0	0	0	0	0	0	71
Whakatane District	15,362	18,233	11,394	12,827	9,699	1,637	48	105	10	2	9	69,326
Opotiki District	2,996	3,941	791	798	739	333	2,612	421	10	0	0	12,641
Region total	65,260	69,143	48,318	62,185	59,261	14,543	5,537	1,414	536	103	153	326,453
East Coast wood supply region												
Gisborne District	6,116	10,324	5,096	8,514	9,853	4,664	1,650	1,403	1,340	17	6	48,982
Region total	6,116	10,324	5,096	8,514	9,853	4,664	1,650	1,403	1,340	17	6	48,982
Hawke's Bay wood supply region												
Wairoa District	945	2,150	2,177	2,313	2,518	156	58	69	56	2	3	10,447
Hastings District	3,023	5,367	5,096	6,100	5,410	1,305	81	184	102	12	14	26,694
Napier City	0	0	0	0	1	0	6	0	0	0	0	7
Central Hawke's Bay District	32	402	25	415	2,389	440	170	56	77	19	7	4,032
Region total	4,000	7,919	7,298	8,828	10,318	1,901	315	309	235	33	24	41,180
Southern North Island wood supply region												
New Plymouth District	0	56	30	57	250	156	43	18	35	0	0	645
Stratford District	451	C	395	252	296	337	C	8	2	0	0	1,999
South Taranaki District	C	C	C	352	299	412	192	83	40	1	4	1,931
Whanganui District	507	735	318	784	568	41	86	81	43	0	9	3,172
Rangitikei District	75	C	95	962	2,805	335	C	85	187	107	0	5,532
Manawatu District	137	538	10	498	449	445	90	36	71	2	5	2,281
Palmerston North City	C	C	315	23	62	44	21	53	70	0	0	750
Tararua District	1,783	C	274	1,476	4,114	422	C	376	99	21	7	10,268
Masterton District	491	C	C	969	1,413	1,248	567	218	259	111	4	5,979
Horowhenua District	115	187	426	319	270	248	97	38	56	0	7	1,763
Carterton District	323	183	187	642	629	304	79	49	106	4	0	2,506
South Wairarapa District	480	460	181	622	695	1,142	265	164	103	5	1	4,118
Kapiti Coast District	39	0	0	169	85	69	324	5	16	0	0	707
Upper Hutt City	511	534	414	493	437	347	155	97	114	19	6	3,126
Porirua City	3	0	0	6	21	338	13	0	64	0	0	445
Wellington City	0	0	0	0	23	35	0	0	0	0	0	58
Lower Hutt City	0	0	0	0	28	0	6	40	16	0	0	90
Region total	5,302	5,740	3,001	7,623	12,443	5,923	2,393	1,351	1,281	270	43	45,370
North Island total	107,545	119,790	76,644	106,116	108,856	33,368	12,886	5,544	3,952	470	241	575,412

	Age class (years)											Total (ha)
	1-5 Years (ha)	6-10 Years (ha)	11-15 Years (ha)	16-20 Years (ha)	21-25 Years (ha)	26-30 Years (ha)	31-35 Years (ha)	36-40 Years (ha)	41-50 Years (ha)	51-60 Years (ha)	61+ Years (ha)	
Nelson and Marlborough wood supply region												
Nelson City	537	1,936	1,641	1,450	1,465	351	45	43	23	1	0	7,492
Tasman District	8,611	12,174	12,883	10,646	8,403	2,747	391	308	358	70	14	56,605
Marlborough District	9,337	8,387	4,572	4,364	8,808	2,124	906	331	263	32	2	39,127
Kaikoura District	0	0	0	36	31	1	12	10	8	2	0	100
Region total	18,485	22,497	19,096	16,496	18,707	5,223	1,354	692	652	105	16	103,323
West Coast wood supply region												
Buller District	460	749	148	61	59	43	41	67	37	0	0	1,665
Grey District	2,144	1,119	1,815	594	424	19	74	156	77	61	0	6,483
Westland District	804	984	1,110	185	310	19	0	10	367	1	0	3,790
Region total	3,408	2,852	3,073	840	793	81	115	233	481	62	0	11,938
Canterbury wood supply region												
Hurunui District	2,160	2,052	2,638	5,717	5,811	1,749	408	88	49	8	6	20,686
Waimakariri District	344	145	562	1,167	1,224	975	53	35	28	34	2	4,569
Christchurch City	608	339	161	277	447	265	153	128	47	1	22	2,448
Selwyn District	1,180	626	106	580	860	788	543	167	38	16	0	4,904
Ashburton District	200	298	271	240	245	4	36	23	0	8	20	1,345
Timaru District	623	47	115	182	647	388	172	12	14	0	0	2,200
Mackenzie District	54	25	17	52	162	105	7	13	45	13	0	493
Waimate District	576	644	303	255	653	179	162	157	33	23	14	2,999
Region total	5,746	4,176	4,173	8,470	10,049	4,453	1,534	623	254	103	64	39,644
Otago and Southland wood supply region												
Waitaki District	C	C	316	690	824	542	200	69	31	C	C	7,097
Dunedin City	1,529	3,167	353	101	437	259	89	42	31	13	1	6,022
Queenstown-Lakes District	0	0	0	13	26	13	13	13	1	20	6	105
Central Otago District	C	C	0	95	173	184	43	40	10	4	13	602
Clutha District	2,041	3,435	4,601	5,476	2,950	1,739	376	207	123	C	C	20,965
Gore District	0	6	1	180	341	312	18	29	37	0	1	925
Southland District	3,557	2,382	2,700	4,913	5,699	959	395	592	229	16	2	21,444
Invercargill City	0	8	29	3	35	44	15	2	4	0	0	140
Region total	9,983	10,578	8,000	11,471	10,485	4,052	1,149	994	466	95	27	57,300
South Island total	37,622	40,104	34,342	37,277	40,034	13,809	4,152	2,542	1,853	365	107	212,206
New Zealand total	145,166	159,894	110,986	143,393	148,891	47,176	17,037	8,086	5,805	835	348	787,617

Figure 24: Distribution of radiata pine unpruned without production thinning forest area by age class and island, as at 1 April 2019



Appendix 1: Glossary

Afforestation: 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.

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 2019 if it was planted in the preceding 12-month period, that is, between 1 April 2018 and 31 March 2019.

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 is deemed confidential and one of the contributors to the confidential number is not prepared to waive the confidentiality rules, then that number is suppressed and secondary suppression is applied to other cells in the table; see Suppression (Secondary) below.

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, often used for grazing or animal feed, and/or has been fertilised.
- "Unimproved pasture" is land with no improved pasture species and that has not been fertilised.
- "Other woody land" is land predominantly covered in species such as bracken, gorse, mānuka, kānuka 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: See afforestation.

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 exotic (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.

Recoverable volume: The volume of a tree (in cubic metres) excluding, for example, non-recoverable volume such as stumps and the non-merchantable tops of stems and bark.

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

Rotation number: The first rotation is a stand 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 recoverable volume (in cubic metres) of wood contained in all live crop stems of all age classes.

Suppression (primary): The removal of a cell's value when it has been deemed sensitive.

Suppression (secondary): The suppression of other cells or marginal totals in the table so that the suppressed cell cannot be recalculated.

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.

Appendix 2: NEFD Steering Committee's Terms of Reference

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

1. 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 to the Ministry for Primary Industries Deputy Director-General of Policy and the Board of the New Zealand Forest Owners' Association.
2. 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 to the Ministry for Primary Industries Deputy Director-General of Policy and to the Board of the New Zealand Forest Owners' Association by 31 May of each year (Review and approval by the Deputy Director-General and the Board are required by 30 June of that year).
3. 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.
4. Monitor user satisfaction with the NEFD outputs through the use of client surveys and through direct discussion with user representatives.
5. Advise the MPI Senior Leadership Team and the Board of the FOA of any significant issues that the Steering Committee is unable to resolve.
6. Oversee the preparation of each edition of the National Exotic Forest Description.
7. Commission forecasts of future wood supply from New Zealand's planted production forests.
8. Ensure that all users are able to subscribe to NEFD reports on an equitable basis, with no barriers to access.
9. Advertise and promote the availability of NEFD reports.
10. Commission research by suitable bodies to improve the quality of NEFD information.

Appendix 3: NEFD Steering Committee

The NEFD Steering Committee currently comprises fourteen representatives nominated by the NZ Forest Owners' Association and the Ministry for Primary Industries. The current members are:

Member	Nominated By
Alan Bell Alan Bell & Associates	New Zealand Forest Owners Association
Jo Drabsch Rayonier New Zealand Ltd	New Zealand Forest Owners Association
Sarah Clough Ministry for Primary Industries	Ministry for Primary Industries
Shannon McLeigh Statistics New Zealand	Ministry for Primary Industries
Ian Hinton (Chairman) Timberlands Ltd	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
Egon Guttke Farm Forestry Association	Ministry for Primary Industries
Bruce Manley School of Forestry, University of Canterbury	Ministry for Primary Industries
John Moore Timberlands Limited	Ministry for Primary Industries
Stephen Murray Ministry for Primary Industries	Ministry for Primary Industries
John Novis Ministry for Primary Industries	Ministry for Primary Industries

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Appendix 5: National Exotic Forest Description Technical Report

Version 2019

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Introduction

This document provides a detailed overview of the methodology used for the National Exotic Forest Description (NEFD). It contains information on data collection and estimation, reliability of data, yield tables and imputation of data. For the most recent NEFD report, as well as past NEFD publications and other forestry related statistics, please visit the Te Uru Rākau website: <https://www.teururakau.govt.nz/news-and-resources/open-data-and-forecasting/forestry/new-zealands-forests/>. For past copies please contact nefd@mpi.govt.nz.

Data collection

The NEFD surveys known forest owners and managers with at least 40 hectares of planted production forest. The survey runs on a two yearly cycle, where all known foresters with 40 hectares of forest are surveyed one year, and only owners with 1,000 or more hectares the next (see Table 1). Respondents either complete the survey via a postal survey or they can complete it electronically.

NEFD survey cycle

Year	2019	2020	2021
Survey frame	Only foresters with 1,000 or more hectares of forests ¹	All known foresters with 40 or more hectares of forests	Only foresters with 1,000 or more hectares of forests ¹

Note

1. The survey is run as a census every two years, as approximately 70 percent of respondents report no change year to year. Large owners are surveyed every year, as they own approximately 70 percent of New Zealand's forests and are more likely to engage in planting and harvesting.

In addition to the data collected in the NEFD surveys, the results from the 2004 AgriQuality (nowASUREQuality) Small Forest Grower Surveys are used in the NEFD dataset. Details on the methods used by AgriQuality are available in the Small Forest Grower Survey Report (AgriQuality NZ, 2005). Harvest Information from the Forestry Production Statistics (FPS) survey is also presented along with NEFD data. Details for the FPS can be found on Te Uru Rākau's website: <https://www.teururakau.govt.nz/news-and-resources/open-data-and-forecasting/forestry/wood-processing/>

Comparing data collected from sources other than the NEFD

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 methodologies and have different survey objectives.

The target population differs for the NEFD and the Agricultural Production Survey (APS). The APS surveys all businesses engaged in "agricultural production activity"

(including livestock, cropping, horticulture, and forestry) or own land intended for agricultural activity. Detailed information on the population frame for the Agricultural Production Survey is available on the Statistics New Zealand website: <http://www.stats.govt.nz/survey-participants/a-z-of-our-surveys/agricultural-production-survey.aspx>

The forest areas released in the NEFD may also differ from those produced in the New Zealand Land Use Map 1990-2012 (LUM v010) – see: <https://data.mfe.govt.nz/layer/52375-lucas-nz-land-use-map-1990-2008-2012-v016/>. 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.

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 the NEFD is therefore not a reliable measure of the total forest area.

Reliability of data

There are different levels of reliability associated with data from different scale forest owners.

Reliability of data from large-scale forest owners

Large-scale forest owners (those with 1,000 hectares or more) own 70 percent of the national forest estate. There are approximately 100 forest owners with more than 1,000 hectares of forest.

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

Reliability of data from smaller scale owners

Smaller scale forest owners with forests of less than 1,000 hectares made up 30 percent of the national forest estate in 2018. There are approximately 1,600 forest owners with between 40 hectares and 999 hectares of forest. The quality of the data provided by owners with less

than 1,000 hectares is likely to be more variable in nature. For instance:

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

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

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 data collection schedule

Forest ownership size (ha)	Survey frequency	Estimated data quality
1,000 ha or more	Annually	Good
999 ha to 40 ha	Every two years	Medium
40 ha	Infrequently	Low

Quality assurance of NEFD survey data

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

- Numeric data input was limited to certain maximum and minimum values for each entry.
- Aggregated area data was checked at the territorial authority level against the 2018 NEFD area dataset to ensure variation was within acceptable limits.
- For each owner, the data provided was compared with data provided by that owner in the previous surveys.
- The completeness of returns was checked, e.g. checking whether harvesting returns included both area and volume harvested.
- Reconciling related fields, e.g. checking that the new planted and replanted area matched the year one stock total.

- A sample of survey data was checked against the original returns to identify data entry errors.

In 2015 a new NEFD system came into use. This system has data quality checks built into data entry and has significantly reduced the number of data entry errors.

Despite the best efforts of the NEFD team some data may still be incorrect. For instance, it is possible that some owners included in the dataset may change their management objectives so an area that is reported as intended to be pruned may not end up being pruned.

Data for forests smaller than 40 hectares

Forest area data for forests smaller than 40 hectares comes from three sources, listed below in order of total area represented:

1. New planting imputations from 1992 to 2006
2. A survey of small forest growers from 2004
3. Forests previously surveyed for the NEFD but which have dropped below 40 hectares.

More detail on these sources is provided below.

New planting imputations 1992 to 2006

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 planting was 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. In recent years the nursery survey has only been used to estimate the total area of planting. New planting and replanting are not now estimated directly through the survey. The methodology was reviewed in 2003 (Manley et al, 2003), and stocking rate assumptions are reassessed every two years.

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. The NEFD report 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 by the new planting as collected in the postal survey.

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 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.

2004 AsureQuality Small Forest Grower Survey

In 2004 AsureQuality (then AgriQuality) used their AgriBase database of agriculture businesses to run a survey of small forest owners for MPI. The data from this survey was first included in the 2004 NEFD report, published in 2005. The original survey captured approximately 138,000 hectares of forest, including owners of forests smaller than 40 hectares and some with over 40 hectares not previously captured by the NEFD.

The data was used in aggregated form for the 2005 and 2006 reports. For 2007 onwards the under-40 hectare area was used in aggregate form, representing around 67,000 hectares. Owners with 40 hectares or more were added to the core database of owners and sent surveys directly.

Small owner estate

Owners of small forests are classified as those with less than 40 hectares of forest. If a forest drops below the 40 hectare cut-off it is no longer part of the survey frame but the data is retained.

Scaling of planting and harvesting data in non-census years

In non-census years the planting and harvesting data is scaled up to estimate the values from the sub-1,000 hectare forest estate. The approach used since 2009 is as follows, using replanting as an example. The same logic is applied to all planting and harvesting variables.

1. For the previous census year, divide the total replanting by the replanting for forests 1,000 hectares and above.
2. Multiple the current year’s replanting by the result of (1).

There are some key assumptions.

- The proportion of sub-1,000 hectare planting and harvesting will be similar from one year to the next.
- The previous census year was not unusual.

Scaling up is only done at the total level and the radiata pine levels. There is too much variability in the smaller species, relating to the above assumptions, to make this a reliable method.

Worked example for replanting.

- Census year total replanting – 1,000 ha
 - Census year 1,000+ hectare replanting – 800 ha
 - Current year total replanting – 900 ha
- Scaled replanting = current year *
(census year total/census year 1,000 +)
= 900 * (1,000/800)
= 900 * 1.25
= 1,125

Yield tables

Standing volumes from the 2018 NEFD onwards have been calculated using the yield tables produced during the 2014/15 Wood Availability Forecasting project. From 2014 to 2017 the 2005 to 2009 tables were used. 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 of the figures produced.

The yield tables were produced principally using data provided in 2014 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 2014/15 Wood Availability Forecasts.

The impact of moving from the 2009 to the 2014 yield tables, is a lower standing volume per hectare. This is due to more attention being paid to realised volumes, which incorporates events such as incremental wind throw and crop failure, compared to previous models.



ANNUAL SURVEY FOR NATIONAL EXOTIC FOREST DESCRIPTION AS AT 1 APRIL 2019

Please check the contact details here are correct. If they are not, please update them in question A1.

Please complete and return this questionnaire no later than **Wednesday 26 June 2019.**

Purpose

The purpose of this survey is to maintain a quantitative database of New Zealand's planted production forests. The aggregated information is used extensively by government and the wider forestry sector for wood availability forecasting, infrastructural planning and to help develop policies affecting the forest sector. The survey is split into four sections:

- Section A** This section asks you to check your contact details and helps you work out which parts of the form you need to fill in. No contact information will go into any publication.
- Section B** This section collects area by age data that is used for regional wood availability forecasting, forest area and volume calculations. This section may contain pre-printed pages, these will need checking. Information is published at the Territorial Authority level.
- Section C** This section records changes in forest area and collects information on planting, harvesting and land use change. The information collected is published at the national level.
- Section D** This section collects information about the use of contact information during an emergency event and feedback from you. Information in this section does not go into any publication.

Confidentiality

All responses to this survey will be treated as confidential and used only for statistical purposes. Information provided is aggregated to prepare publications. Details provided by individual forest owners and managers are seen only by people directly involved with running the survey.

This information is collected under the statistical provisions of the Forests Act 1949.

For assistance please contact **NEFD SURVEY SUPPORT**

tel: NEFD survey support direct dial (04) 894 0001, or free phone MPI general enquires, 0800 008 333 and ask to speak to NEFD survey support (you may need to leave a message)
email: NEFD@mpi.govt.nz
mail: Survey Support, NEFD, Ministry for Primary Industries, PO Box 2526, Wellington 6140

Ray Smith
Director-General of the Ministry for Primary Industries

Peter Weir
New Zealand Forest Owners' Association

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.

Yes ▶ Go to **A4**

No ▶ Go to **A3**

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?

privately owned

registered public company

local government

central government

state owned enterprise

other (please specify)

Maori Trust

SECTION A: CONTACT DETAILS continued

A5 Between 1 April 2018 and 31 March 2019, 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 2018 and 31 March 2019, 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 2018 and 31 March 2019, 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 contact survey support (see front page).
- tick the box below
- complete Section D and return your form.

Alternatively, you can contact survey support (see front page) 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 2019

Supplying the data electronically

- The data requested in Section B can be supplied electronically.
- Please contact survey support (see front page).

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' box 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 2019

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 (see front page)

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 2019

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

Age by age information

B7 As at 1 April 2018, 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 2019	Net stocked area (Ha)	Year Planted	Age in 2019	Net stocked area (Ha)	Year Planted	Age in 2019	Net stocked area (Ha)	Year Planted	Age in 2019	Net stocked area (Ha)
2018	1		1997	22		1976	43		1955	64	
2017	2		1996	23		1975	44		1954	65	
2016	3		1995	24		1974	45		1953	66	
2015	4		1994	25		1973	46		1952	67	
2014	5		1993	26		1972	47		1951	68	
2013	6		1992	27		1971	48		1950	69	
2012	7		1991	28		1970	49		1949	70	
2011	8		1990	29		1969	50		1948	71	
2010	9		1989	30		1968	51		1947	72	
2009	10		1988	31		1967	52		1946	73	
2008	11		1987	32		1966	53		1945	74	
2007	12		1986	33		1965	54		1944	75	
2006	13		1985	34		1964	55		1943	76	
2005	14		1984	35		1963	56		1942	77	
2004	15		1983	36		1962	57		1941	78	
2003	16		1982	37		1961	58		1940	79	
2002	17		1981	38		1960	59		1939	80	
2001	18		1980	39		1959	60		1939 or earlier	80+	
2000	19		1979	40		1958	61				
1999	20		1978	41		1957	62				
1998	21		1977	42		1956	63				
										Total Net Stocked Area	

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 B2 to B7.
- Contact survey support (see front page)

C2 Between 1 April 2018 and 31 March 2019, 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 2018.

	New Planted area for year ended 31 December 2018 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 2018 Give the area of forest which was replanted following harvest
Radiata pine	<input type="text"/> ha	<input type="text"/> ha
Douglas-fir	<input type="text"/> ha	<input type="text"/> ha
Cypress species includes macrocarpa, lusitanica and 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 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 or elm	<input type="text"/> ha	<input type="text"/> ha
TOTAL	<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
TOTAL – note, this total should equal the 'new planted area' in question C4	<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 2018 and 31 March 2019, 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 2019, please give the following harvesting details:

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

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 unpruned grade, please record as "unpruned" (see glossary for definitions).

Volume (recovered) sold as

Pruned Logs		Unpruned sawlogs		Pulp/chip logs		Total recovered
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
m3		m3		m3		m3

SECTION C: continued PLANTING AND HARVESTING

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

C10 Between 1 April 2015 and 31 March 2019 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 2015 and 31 March 2019 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 2018 and 31 March 2019, 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 2018 and 31 March 2019, 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 2018 and 31 March 2019, 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

SECTION D: CONTACT IN AN EMERGENCY AND FEEDBACK

Approval to access contact details in the event of an emergency

D1 I agree to the Ministry for Primary Industries and allied organisations using my name, contact details and total forest area (as reported in this questionnaire) for fire, biosecurity and emergency events only.

Yes

No

Helping us find forests

To make sure we don't miss out any forests we should be counting, if you own or manage any forests over 40 hectares that you don't receive an NEFD survey for, please let us know by contacting survey support (see front page).

– if you call, one of our NEFD team members will be happy to talk to you, or you can leave us a message.

Your comments and feedback

Please write any comments that would help MPI interpret the information you have provided on the lines below, or you could email us at NEFD@mpi.govt.nz

MPI also appreciates any feedback you have on how to improve this questionnaire.

Thank you for taking the time to complete this NEFD survey

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.

2018 Information

This information can be found in your previous NEFD return

Net stocked area as at 1 April 2018		<input type="text"/>	ha
Area awaiting replanting on 31 March 2018	+	<input type="text"/>	ha
Area awaiting a land use decision on 31 March 2018	+	<input type="text"/>	ha
TOTAL forest area as at 1 April 2018	=	<input type="text"/>	ha

2019 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	C4
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	C13
Immature forest cleared for conversion to a non-forest land use	-	<input type="text"/>	ha	C14
Re-mapping adjustment	+ / -	<input type="text"/>	ha	Pls circle + or -
Net stocked area as at 1 April 2019	=	<input type="text"/>	ha	B7
Area awaiting replanting on 31 March 2019	+	<input type="text"/>	ha	C10
Area awaiting land use decision on 31 March 2019	+	<input type="text"/>	ha	C11
TOTAL forest area as at 1 April 2019	=	<input type="text"/>	ha	

This is the end of the questionnaire

Returning the survey

Make sure you have answered **Section D**

Please return all the copies of all the forms you have used, as well as the forms sent to you as part of the questionnaire. Please return the survey to NEFD Survey Support (see front page for contact details).

THANK YOU FOR YOUR SUPPORT

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-and-resources/statistics-and-forecasting/forestry>
 or by emailing brand@mpi.govt.nz

