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Forestry facts and figures more important than ever

I am extremely pleased to endorse the Forest Owners Association latest facts and figures document. The information in this document enables us to track how well and how quickly the sector recovers from the impacts of COVID-19.

Last year, the forestry and wood processing sector earned around $6.9 billion in export revenue and employed more than 35,000 people - making the sector a key player in the New Zealand economy.

Forestry, along with the wider primary sector, will be a driving force in the economy as New Zealand begins to recover from COVID-19. As we recover, the sector will need to seize opportunities to develop new domestic and export markets for additional and more sustainable products.

The need to develop new markets was highlighted in the Economic Update for the Primary Industries published in June 2020, which confirmed that the forestry sector is in for a bumpy ride as export markets, particularly those in China, begin to recover.

The Economic Update for the Primary Industries shows forestry has been significantly impacted by the COVID-19 outbreak and responses, first by China’s lockdown, then by New Zealand’s, with $434 million less revenue (down 39 per cent) compared with the same period last year and 42 per cent down to China. Since moving to Level 3 in late April, forestry export revenue has been able to ramp up, with higher export revenue in the second half of May than the same period in 2019.

The forestry and wood processing sector and the Government will need reliable facts and figures to inform and improve policy making decisions, and also to track how the sector is fairing, making this document more important than ever as we recover from COVID-19.

This document is and will continue to be an invaluable source of information for the Government, the sector, investors and others who have an interest in New Zealand forestry and wood processing.
New Zealand Planted Forestry Highlights

1.697 m ha is the estimated net stocked plantation forest area at 1 April 2019. This is a reduction of 9,918 ha from the net stocked area at 1 April 2018.

IN 2019, A RECORD 35.9 million m³ WAS HARVESTED FROM NEW ZEALAND FORESTS, UP 1% FROM THE 2018 CALENDAR YEAR (35.7 MILLION M³).

The value of all forestry exports to December 2019 was $6.32 billion. Of this, $3.45 billion of export revenue for the year was from logs.

MPI predicts the value of forest product exports will fall in 2020 behind that of horticulture for the first time.

New Zealand Planted Forestry in Summary

<table>
<thead>
<tr>
<th>Area and standing volume statistics</th>
<th>As at 1 April 2017</th>
<th>As at 1 April 2018</th>
<th>As at 1 April 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net stocked area (ha)</td>
<td>1,706,429</td>
<td>1,704,494</td>
<td>1,696,584</td>
</tr>
<tr>
<td>Growth characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing volume (000 m³)</td>
<td>472,715</td>
<td>482,511</td>
<td>494,618</td>
</tr>
<tr>
<td>Average standing volume (m³/ha)</td>
<td>277</td>
<td>283</td>
<td>292</td>
</tr>
<tr>
<td>Area-weighted average age (years)</td>
<td>17.39</td>
<td>17.63</td>
<td>17.91</td>
</tr>
<tr>
<td>Area by species³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiata pine (ha)</td>
<td>1,535,510</td>
<td>1,532,444</td>
<td>1,525,711</td>
</tr>
<tr>
<td>Douglas-fir (ha)</td>
<td>103,726</td>
<td>104,258</td>
<td>103,410</td>
</tr>
<tr>
<td>Cypress species (ha)</td>
<td>9,855</td>
<td>9,928</td>
<td>9,825</td>
</tr>
<tr>
<td>Other softwoods (ha)</td>
<td>22,539</td>
<td>23,378</td>
<td>23,381</td>
</tr>
<tr>
<td>Eucalypts (ha)</td>
<td>22,307</td>
<td>22,148</td>
<td>21,777</td>
</tr>
<tr>
<td>Other hardwoods (ha)</td>
<td>12,492</td>
<td>12,339</td>
<td>12,481</td>
</tr>
<tr>
<td>Planting statistics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New planting⁴</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total estimated new planting (ha)</td>
<td>2,500</td>
<td>6,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Restocking</td>
<td>40,610</td>
<td>36,616</td>
<td>41,073</td>
</tr>
<tr>
<td>Harvested area awaiting restocking</td>
<td>48,470</td>
<td>50,072</td>
<td>51,609</td>
</tr>
<tr>
<td>Harvesting statistics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area-weighted average clear fell age for radiata pine (years)</td>
<td>28.4</td>
<td>28.7</td>
<td>29.1</td>
</tr>
<tr>
<td>Estimated planted forest roundwood removal (000m³)⁶</td>
<td>30,650</td>
<td>34,442</td>
<td>36,404</td>
</tr>
</tbody>
</table>

Notes
1. The net stocked area for 2018 has been revised.
2. The 2019 survey sought data from owners with 40 hectares of forest or more.
3. All volumes are reported as recovered volumes.
4. These estimates are based on data collected in the 2018 NEFD survey and may differ from the roundwood removals estimate as published in the Annual log and roundwood removal statistics, Ministry for Primary Industries.
5. Estimate from the Annual log and roundwood removal statistics.

Source Box 1 NEFD 2019
Source Box 2 SOPI June 2019
Source Box 3 SOPI September 2019
Source Box 4 SOPI March 2020
Land Use and Returns

Annual Total Value Chain Impact per 1,000 hectares – Value-Add by Land-Use

Export Value Comparisons

Export product category | million ha 2016 | Year to June 2019 exports billion $ | Per ha/yr $
--- | --- | --- | ---
Horticulture | 0.19 | 6.1 | 32,158
Dairy | 2.6 | 18.1 | 6,969
Forestry | 1.7 | 6.9 | 4,077
Meat & wool | 8.5 | 10.2 | 1,200
All pastural farms | 11.1 | 28.3 | 8,169

Annual Cash Surplus

MPi Predictions for Primary Industry Sector Export Values 2024 ($ billions)

| Export | Billions $
--- | ---
Forestry | $6.29
Horticulture | $7.23
Seafood | $2.31
Other primary sector | $3.53
Meat and Wool | $10.77
Dairy | $19.97

Source: Annual total value chain impact per 1,000 hectares – value-add by land-use Economic Impacts of Forestry in New Zealand, PwC 2020
Source: Export Value Comparisons MfE/Stats ‘Our Land 2018’, SOPI September 2019
Source: Annual Cash Surplus Scion November 2015

Notes
1 These export value figures do not take into account the different land class ratios used for the four listed industry categories, nor the shift of product across categories, such as beef from dairy cows.
2 Neither charges nor payments under the Emissions Trading Scheme are calculated into these figures.
3 These are export value figures alone and do not reflect the different domestic consumption levels across the primary sector. Nor do they reflect different ROI levels.
4 Dairy and Forestry is 10 year averages since 2005. Drystock is for East Coast hill country. Beef & Lamb NZ data.

Comparative Export Earnings and China Market

MPi Predictions for Primary Industry In-sector Export Values 2024 ($ billions)

| Export | Billions $
--- | ---
Whole Milk Powder | $6.65
Logs | $3.46
Butter, Anhydrous Milk Fat & Cream | $3.56
Sheepmeat | $4.04
Beef | $3.54
Processed Forest Products | $2.55
Kiwifruit | $3.42
Cheese | $2.13
Wine | $1.96

Proportion of exports to China by primary sector (% percentage)

Source: Box 1 SOPI March 2020
Source: SOPI March 2020
Source: MPI Predictions for Primary Industry In-sector Export Values 2024 SOPI March 2020
Source: Proportion of exports to China by primary sector SOPI September 2019
Some **560 billion** trees comprise a world forest area of 4.06 billion hectares, which is 31 percent of the total land area, and 290m ha of this is planted forest including 131m ha of managed plantation forest.

A YALE UNIVERSITY STUDY HAS FOUND THE WORLD’S FORESTS COMPRISE **385 billion m³** of wood with 17 billion added growth each year and 3.4 B m³ harvested.

### Annual Forest Area Net Change, by Decade and Region, 1990–2020

<table>
<thead>
<tr>
<th>Decade</th>
<th>Asia</th>
<th>Europe</th>
<th>North and Central America</th>
<th>South America</th>
<th>Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990–2000</td>
<td>-6</td>
<td>-3</td>
<td>-1</td>
<td>-2</td>
<td>-4</td>
</tr>
<tr>
<td>2000–2010</td>
<td>-5</td>
<td>-3</td>
<td>-2</td>
<td>-3</td>
<td>-5</td>
</tr>
<tr>
<td>2010–2020</td>
<td>-4</td>
<td>-4</td>
<td>-3</td>
<td>-5</td>
<td>-6</td>
</tr>
</tbody>
</table>

### Naturally Regenerating versus Managed Planted Forests, (% of global forest area)

- Naturally regenerating forest **93%**
- Plantation forest **3%**
- Other managed planted forest **4%**

### World Proportion of Carbon Stock in Forest Carbon Pools

- In litter **6%**
- In living biomass **44%**
- In dead wood **4%**
- In soil organic matter **45%**

**Notes**

1. According to the regional breakdown used in FRA 2020, Europe includes the Russian Federation.

**Source**

- Box 1 FAO Global Forest Resources Assessment 2020
- Box 2 Journal of Sustainable Forestry, 28 March 2014
THE WORLD HAS LOST 178 million HECTARES OF FOREST SINCE 1990, WHICH IS 6.5 TIMES THE AREA OF NEW ZEALAND, THOUGH THE RATE OF LOSS HAS FALLEN FROM 7.8M HA TO 4.7M HA PER YEAR, MOST OF WHICH OCCURS IN AFRICA.

World forests’ carbon fell from 668 gigatonnes in 1990 to 662 gigatonnes in 2020.

The forest area designated for soil and water protection has increased from 200m ha in 1990 to 399m ha in 2020.

Source Box 1, 2 & 3 FAO Global Forest Resources Assessment 2020
**Planted Forest Mix and Ownership**

The trees in 90% of all New Zealand planted forests are *Pinus radiata*, with most of the other species growing in the South Island.

**Planted Forest Ownership**

As at 1 April 2019

- Registered public company
- State owned enterprise
- Local government
- Central government
- Privately owned under 40 ha
- Privately owned 40-999 ha
- Privately owned over 1000 ha

**Forestry Plantings and Harvest Volumes**

Year ended December 1992–2019

## NZ Plantation Forest Ownership – Underlying Land Status

As at 31 December 2019

<table>
<thead>
<tr>
<th>Firm/Entity</th>
<th>Freehold</th>
<th>Leasehold</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Crown</td>
<td>Māori Inc.</td>
<td></td>
</tr>
<tr>
<td>Kaingaroa Timberlands Limited</td>
<td>1,396</td>
<td>184,100</td>
<td>185,496</td>
</tr>
<tr>
<td>Hancock Natural Resource Group</td>
<td>84,546</td>
<td>8,792</td>
<td>179,737</td>
</tr>
<tr>
<td>Rayonier Matariki Forests</td>
<td>56,740</td>
<td>27,081</td>
<td>119,241</td>
</tr>
<tr>
<td>Ernslaw One</td>
<td>59,889</td>
<td>43,690</td>
<td>110,215</td>
</tr>
<tr>
<td>NZ Carbon Farming Group Ltd</td>
<td>36,869</td>
<td>43,888</td>
<td>80,757</td>
</tr>
<tr>
<td>OneFortyOne</td>
<td>22,731</td>
<td>39,691</td>
<td>62,495</td>
</tr>
<tr>
<td>Summit Forests NZ Limited</td>
<td>4,030</td>
<td>23,023</td>
<td>36,943</td>
</tr>
<tr>
<td>Tasman Pine Forests Ltd</td>
<td>25,306</td>
<td>9,044</td>
<td>36,360</td>
</tr>
<tr>
<td>Pan Pac Forest Products</td>
<td>5,108</td>
<td>817</td>
<td>34,960</td>
</tr>
<tr>
<td>Global Forest Partners LP</td>
<td>33,688</td>
<td>97</td>
<td>33,785</td>
</tr>
<tr>
<td>Juken New Zealand</td>
<td>9,907</td>
<td>14,593</td>
<td>24,392</td>
</tr>
<tr>
<td>Crown Forestry (MPI)</td>
<td>1,523</td>
<td>19,478</td>
<td>20,916</td>
</tr>
<tr>
<td>Forest Enterprises</td>
<td>27,647</td>
<td>2,003</td>
<td>32,296</td>
</tr>
<tr>
<td>Ngāi Tahu Forestry</td>
<td>29,912</td>
<td></td>
<td>29,912</td>
</tr>
<tr>
<td>Wenita</td>
<td>5,815</td>
<td>23,369</td>
<td>29,184</td>
</tr>
<tr>
<td>Port Blakely Ltd</td>
<td>26,830</td>
<td>1,829</td>
<td>28,659</td>
</tr>
<tr>
<td>Aratu Forests Ltd</td>
<td>25,570</td>
<td>2,218</td>
<td>28,084</td>
</tr>
<tr>
<td>Roger Dickie NZ</td>
<td>27,847</td>
<td></td>
<td>27,847</td>
</tr>
<tr>
<td>Lake Taupo Forest Trust</td>
<td>22,893</td>
<td>2,230</td>
<td>25,123</td>
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<tr>
<td>China Forestry Group Corporation</td>
<td>13,893</td>
<td>6,019</td>
<td>20,271</td>
</tr>
<tr>
<td>City Forests</td>
<td>17,162</td>
<td>981</td>
<td>18,143</td>
</tr>
<tr>
<td>The Rohatyn Group</td>
<td>2,209</td>
<td></td>
<td>2,209</td>
</tr>
</tbody>
</table>

**Totals**

541,511 106,328 400,646 138,343 1,186,828

**Notes**

1 Ownership is based solely on the ownership of the forest irrespective of the ownership of the land.
2 Net stocked planted production forest area.
3 Significant changes in forest ownership occurred in 2003, resulting in large areas of forest previously owned by public companies now being privately owned.
4 “Privately owned” includes all privately owned forests. The legal entities included in this category are private companies, partnerships, individuals and trusts, which include Māori trusts and incorporations.
5 “Central government” forests are predominantly Crown-owned forests on Māori leasehold land. These forests are managed by the Ministry for Primary Industries.

**Source**

Box 1 & Planted Forest Ownership NEFD 2019
Forestry Plantings and Harvest Volumes Statistics NZ & MPI

**Planted Forest Ownership**

As at 1 April 2019

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinus radiata</td>
<td>90%</td>
</tr>
<tr>
<td>Other species</td>
<td>South Island</td>
</tr>
</tbody>
</table>

**Notes**

1 Ownership is based solely on the ownership of the forest irrespective of the ownership of the land.
2 Net stocked planted production forest area.
3 Significant changes in forest ownership occurred in 2003, resulting in large areas of forest previously owned by public companies now being privately owned.
4 “Privately owned” includes all privately owned forests. The legal entities included in this category are private companies, partnerships, individuals and trusts, which include Māori trusts and incorporations.
5 “Central government” forests are predominantly Crown-owned forests on Māori leasehold land. These forests are managed by the Ministry for Primary Industries.

**Source**

Box 1 & Planted Forest Ownership NEFD 2019
Forestry Plantings and Harvest Volumes Statistics NZ & MPI
Commercial Planted Forest Ownership and Management
As at 31 December 2019

<table>
<thead>
<tr>
<th>Firm/Entity</th>
<th>Forest Management Productive Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(TIMO)</td>
</tr>
<tr>
<td>Kaingaroa Timberlands Limited</td>
<td>185,496</td>
</tr>
<tr>
<td>Hancock Forest Management (NZ) Ltd</td>
<td>179,737</td>
</tr>
<tr>
<td>Hancock Natural Resource Group</td>
<td>179,737</td>
</tr>
<tr>
<td>PF Olsen Ltd</td>
<td>137,060</td>
</tr>
<tr>
<td>Rayonier New Zealand Ltd</td>
<td>119,241</td>
</tr>
<tr>
<td>Ernslaw One</td>
<td>95,664</td>
</tr>
<tr>
<td>OneFortyOne</td>
<td>62,944</td>
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<tr>
<td>Summit Forests NZ Limited</td>
<td>36,940</td>
</tr>
<tr>
<td>Tasman Pine Forests Ltd</td>
<td>36,940</td>
</tr>
<tr>
<td>Pan Pac Forest Products</td>
<td>34,960</td>
</tr>
<tr>
<td>Juken New Zealand</td>
<td>32,299</td>
</tr>
<tr>
<td>Forest Enterprises</td>
<td>19,881</td>
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<tr>
<td>Port Blakely Ltd</td>
<td>28,600</td>
</tr>
<tr>
<td>Aratu Forests Ltd</td>
<td>28,084</td>
</tr>
<tr>
<td>Roger Dickie NZ</td>
<td>27,847</td>
</tr>
<tr>
<td>Forest Management NZ Ltd</td>
<td>27,847</td>
</tr>
<tr>
<td>Ngāi Tahu Forestry</td>
<td>26,126</td>
</tr>
<tr>
<td>Wenita</td>
<td>25,015</td>
</tr>
<tr>
<td>M&amp;R Forestland Management Ltd</td>
<td>10,152</td>
</tr>
<tr>
<td>City Forests</td>
<td>18,143</td>
</tr>
<tr>
<td>Global Forest Partners LP</td>
<td>12,342</td>
</tr>
<tr>
<td>The Rohatyn Group</td>
<td>2,209</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>345,694</strong></td>
</tr>
</tbody>
</table>

Notes: See page 14

Environmental Certification
As at 31 December 2019

<table>
<thead>
<tr>
<th>Company</th>
<th>Environmental Certification Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rayonier New Zealand Ltd</td>
<td>FSC (ha) 156,788  PEFC (ha) 157,311</td>
</tr>
<tr>
<td>PanPac Forest Products Ltd</td>
<td>FSC (ha) 46,311  PEFC (ha) 59,122</td>
</tr>
<tr>
<td>NZ Forest Managers Ltd</td>
<td>FSC (ha) 29,182  PEFC (ha) 28,636</td>
</tr>
<tr>
<td>Wenita Forest Products Ltd</td>
<td>FSC (ha) 32,299  PEFC (ha) 29,005</td>
</tr>
<tr>
<td>Aratu Forests Ltd</td>
<td>FSC (ha) 9,054  PEFC (ha) 5,162</td>
</tr>
<tr>
<td>Juken New Zealand Ltd</td>
<td>FSC (ha) 36,943  PEFC (ha) 36,943</td>
</tr>
<tr>
<td>The Rohatyn Group</td>
<td>FSC (ha) 1,185  PEFC (ha) 1,185</td>
</tr>
<tr>
<td>Kaingaroa Timberlands Limited</td>
<td>FSC (ha) 185,496  PEFC (ha) 185,496</td>
</tr>
<tr>
<td>Port Blakely Ltd</td>
<td>FSC (ha) 33,880  PEFC (ha) 33,880</td>
</tr>
<tr>
<td>Southland Plantation Forest Company of New Zealand</td>
<td>FSC (ha) 13,907  PEFC (ha) 13,907</td>
</tr>
<tr>
<td>M&amp;R Forestland Management Ltd</td>
<td>FSC (ha) 12,061  PEFC (ha) 12,061</td>
</tr>
<tr>
<td>China Forestry Group Corporation</td>
<td>FSC (ha) 20,591  PEFC (ha) 20,591</td>
</tr>
<tr>
<td>Tasman Pine Forests Ltd</td>
<td>FSC (ha) 36,360  PEFC (ha) 36,360</td>
</tr>
<tr>
<td>Ngāi Tahu Forestry</td>
<td>FSC (ha) 45,847  PEFC (ha) 45,847</td>
</tr>
<tr>
<td>Forest Enterprises</td>
<td>FSC (ha) 10,634  PEFC (ha) 10,634</td>
</tr>
<tr>
<td>City Forests</td>
<td>FSC (ha) 22,544  PEFC (ha) 22,544</td>
</tr>
<tr>
<td>Ernslaw One Ltd (North Island)</td>
<td>FSC (ha) 80,600  PEFC (ha) 80,600</td>
</tr>
<tr>
<td>Ernslaw One Ltd South Island</td>
<td>FSC (ha) 29,676  PEFC (ha) 29,676</td>
</tr>
<tr>
<td>Hancock Forest Management (NZ) Ltd</td>
<td>FSC (ha) 179,737  PEFC (ha) 179,737</td>
</tr>
<tr>
<td>Craigpine Timber Ltd</td>
<td>FSC (ha) 2,266  PEFC (ha) 2,266</td>
</tr>
<tr>
<td>OneFortyOne</td>
<td>FSC (ha) 79,924  PEFC (ha) 79,924</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>1,153,050</strong></td>
</tr>
</tbody>
</table>

Notes: See page 14

P13 Notes:
The table is designed to identify who manages NZ forests. Within “management” there are 2 main categories: Timberland Investment Management (commonly referred to as a TIMO). These organisations do not own any forest. The forests are owned by retail investors or institutional funds.

Property Management
Planning and managing field operations, mapping and maintaining records. Some entities carry out both functions within the same organisation, others carry out both for some parts of a forest estate and not others.

Source: Commercial Planted Forest Ownership and Management FOA

P14 Notes:
The table is designed to identify who manages NZ forests. Within “management” there are 2 main categories: Timberland Investment Management (commonly referred to as a TIMO). These organisations do not own any forest. The forests are owned by retail investors or institutional funds.

Property Management
Planning and managing field operations, mapping and maintaining records. Some entities carry out both functions within the same organisation, others carry out both for some parts of a forest estate and not others.

Source: Environmental Certification FOA

Notes: See page 14
## Planted Forests by Location

### Area Planted in all Species by Territorial Authority,¹,²

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Total Forest Area (HA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2017</td>
</tr>
<tr>
<td>Northland</td>
<td>186,868</td>
</tr>
<tr>
<td>Central North Island</td>
<td>567,478</td>
</tr>
<tr>
<td>East Coast</td>
<td>154,149</td>
</tr>
<tr>
<td>Hawke’s Bay</td>
<td>134,391</td>
</tr>
<tr>
<td>Southern North Island</td>
<td>161,432</td>
</tr>
<tr>
<td>Nelson/Marlborough</td>
<td>166,230</td>
</tr>
<tr>
<td>West Coast</td>
<td>31,375</td>
</tr>
<tr>
<td>Canterbury</td>
<td>95,763</td>
</tr>
<tr>
<td>Otago/Southland</td>
<td>208,744</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,706,429</td>
</tr>
</tbody>
</table>

### Plantation Forests

As at 1 April 2019

- Canterbury 6%
- West Coast 2%
- Otago and Southland 12%
- Northland 11%
- Central North Island 33%
- East Coast 9%
- Hawke’s Bay 8%
- Southern North Island 9%
- Nelson and Marlborough 10%

### Forest Area by Age Class and Wood Supply Region

As at 1 April 2019

#### Net Stocked Area of *Pinus radiata*

**Forest Area 2019 by 5 Yearly Age Class**

*By Age Class as at 1 April 2019*

- Forest area *Pinus radiata*
- Other species

**Age Class 2019 Over Time**

*By Age Class as at 1 April 2019*

Notes:

1. Net stocked planted production forest area.
2. Individual entries may not add to totals due to rounding.

Source: Area Planted in all Species by Territorial Authority, Plantation Forests & Forest Area by Age Class and Wood Supply Region NEFD 2019
Harvestable *Pinus radiata*

Forest Area Planted in *Pinus Radiata* by Territorial Authority

Of Harvestable Age (21+) Per Region (ha), as at 1 April 2019

The total planted forest standing volume in April 2019 was **495 million m$^3$**, an increase of 12 million m$^3$ from the 2018 revised figure.

The average age of plantation trees was **17.9 years** in April 2019, a marginal increase (99 days) from 17.63 years in 2017, indicating the 1990s peak planting is still more than offsetting the increased harvesting and new planting rates.

Source: NEFD 2019

Plantation Species (ha)

Species Distribution

As at 1 April 2019

<table>
<thead>
<tr>
<th>Species</th>
<th>Harvest Age</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Pinus radiata</em></td>
<td>29.1 years</td>
</tr>
<tr>
<td>Douglas-fir</td>
<td>40 years</td>
</tr>
<tr>
<td>Cypress</td>
<td>34 years</td>
</tr>
<tr>
<td>Eucalypts</td>
<td>21 years</td>
</tr>
</tbody>
</table>

Notes

1 Not listed by NEFD

Source: Species Distribution NEFD 2019

Source: Approximate Harvest Age Over the Past Five Years SOPI June 2019

Minor Plantation Species

- Other pines; *P. nigra, P. muricata, P. ponderosa*
- Other softwoods; *Redwoods, Larch, Cryptomeria, Cypress*
- Indigenous species; *Kauri, Tōtara, Beech*
- Other hardwoods; *Poplars, Acacia, Willows, Black Walnut, Paulownia, Oaks*
- Non-durable eucalypts; *E. obliqua, E. fastigata, E. regnans, E. nitens, E. saligna, E. botryoides, E. pilularis, E. muelleriana*
- Durable eucalypts; *E. globoidea, E. bosistoana, E. quadrangulata*.

Approximate Harvest Age Over the Past Five Years

Source: SOPI June 2019
New Forest Planting and Deforestation

Afforestation and Deforestation in New Zealand, 1990–2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hectares</td>
<td>-20,000</td>
<td>-20,000</td>
<td>0</td>
<td>40,000</td>
<td>60,000</td>
<td>80,000</td>
<td>100,000</td>
</tr>
</tbody>
</table>

Forest Planting

Tree Stock Sales from 2012 to 2019

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinus radiata</td>
<td>64.6</td>
<td>48.5</td>
<td>47.2</td>
<td>45.8</td>
<td>49.3</td>
<td>48.0</td>
<td>56.6</td>
<td>84.0</td>
</tr>
<tr>
<td>Other</td>
<td>7.9</td>
<td>5.7</td>
<td>3.6</td>
<td>3.8</td>
<td>3.4</td>
<td>3.3</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>72.5</td>
<td>54.1</td>
<td>50.8</td>
<td>49.5</td>
<td>52.7</td>
<td>51.3</td>
<td>59.9</td>
<td>88.8</td>
</tr>
</tbody>
</table>

Estimated Percentages of Total Radiata Pine Planting by Categories

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Open pollinated seedlings</td>
<td>48</td>
<td>38</td>
<td>36</td>
<td>31</td>
<td>28</td>
<td>25</td>
<td>30</td>
<td>49</td>
</tr>
<tr>
<td>Control pollinated seedlings, cuttings/clones</td>
<td>52</td>
<td>62</td>
<td>64</td>
<td>69</td>
<td>72</td>
<td>75</td>
<td>70</td>
<td>51</td>
</tr>
</tbody>
</table>

Notes

1. MPI expects up to 100 million plantation seedlings will be planted in 2020.
2. Source: Tree Stock Sales from 2011 – 2019, Provisional estimates of tree stock sales and forest planting in 2019, MPI.
3. Source: Box 1 & 2 Tree Stock Sales from 2011 – 2019, Provisional estimates of tree stock sales and forest planting in 2019, MPI.
5. Source: Plantation Forest Harvest, MPI.
Forest Management Trends

Radiata Pine by Tending Regime
As at 1 April 2019

Pruned with production thinning 9%
Pruned without production thinning 36%
Unpruned without production thinning 52%
Unpruned with production thinning 3%

<table>
<thead>
<tr>
<th>2017 Hectares</th>
<th>2018 Hectares</th>
<th>2019 Hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pruned with production thinning</td>
<td>154,427</td>
<td>148,191</td>
</tr>
<tr>
<td>Pruned without production thinning</td>
<td>595,958</td>
<td>576,195</td>
</tr>
<tr>
<td>Unpruned with production thinning</td>
<td>53,844</td>
<td>51,716</td>
</tr>
<tr>
<td>Unpruned without production thinning</td>
<td>731,282</td>
<td>775,884</td>
</tr>
</tbody>
</table>

The area under an unpruned management regime continues to grow, to now about 55% of the Pinus radiata forest estate. The area of production thinned radiata forest is also decreasing, now to about 12%.

Pinus Radiata Harvest Volume by Log Type
For year end 31 March 2019

Unpruned 70%
Pulp and Chip 18%
Pruned 12%

Typical Log Out-turn

Direct Sawlog Regime
Pruned and thinned. Final Crop Stocking 228 stems per hectare.

<table>
<thead>
<tr>
<th></th>
<th>Length</th>
<th>Volume</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste</td>
<td>8 m</td>
<td>0.18 m³</td>
<td>0%</td>
</tr>
<tr>
<td>Industrial grade logs</td>
<td>8 m</td>
<td>0.31 m³</td>
<td>7%</td>
</tr>
<tr>
<td>Sawlogs</td>
<td>15 m</td>
<td>1.15 m³</td>
<td>43%</td>
</tr>
<tr>
<td>Pruned logs</td>
<td>5 m</td>
<td>0.64 m³</td>
<td>50%</td>
</tr>
<tr>
<td>Stump</td>
<td>0.2 m</td>
<td>0.03 m³</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>36 m</td>
<td>2.3 m³</td>
<td>100%</td>
</tr>
</tbody>
</table>

Structural Regime
Thinned. Final Crop Stocking 487 stems per hectare.

<table>
<thead>
<tr>
<th></th>
<th>Length</th>
<th>Volume</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste</td>
<td>8 m</td>
<td>0.24 m³</td>
<td>0%</td>
</tr>
<tr>
<td>Industrial grade logs</td>
<td>8 m</td>
<td>0.41 m³</td>
<td>20%</td>
</tr>
<tr>
<td>Sawlogs</td>
<td>19 m</td>
<td>0.95 m³</td>
<td>80%</td>
</tr>
<tr>
<td>Pruned logs</td>
<td>0 m</td>
<td>0.00 m³</td>
<td>0%</td>
</tr>
<tr>
<td>Stump</td>
<td>0.2 m</td>
<td>0.01 m³</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>35 m</td>
<td>1.61 m³</td>
<td>100%</td>
</tr>
</tbody>
</table>

Notes
Average site (Site Index 29 m, 300 Index 23 m³/ha/yr). Clearfelled at 28 years.

Source Direct Sawlog Regime & Structural Regime Scion

Source Pinus Radiata by Tending Regime & Radiata Pine Harvest Volume by Log Type NEFD 2019
Source Pinus Radiata by Tending Regime & Radiata Pine Harvest Volume by Log Type NEFD 2019
Log Flow in the New Zealand Forestry Industry

Year Ended December 2019 in tonnes

From indigenous forest 17,890
From plantation forest 35,880,900

Total log input 35,898,790

Log export 21,776,203
Processed in New Zealand 13,847,610

Forest residues Not available

THE INDIGENOUS TREE HARVEST NOW REPRESENTS LESS THAN 0.05% OF THE TOTAL

Source: Log Flow in the New Zealand Forestry Industry MPI
Don’t go down in history as the person who noticed something but didn’t tell. Keep our forests free of new pests and diseases.

Infestations of the sirex woodwasp, accidently imported into New Zealand more than a 100 years ago, causes pine trees to rot and India assesses it as a phytosanitary concern.

If you believe you’ve found something that shouldn’t be here, phone MPI’s hotline on 0800 80 99 66. They will arrange for whatever photos, samples and site visits are necessary. Or, email to; Info@mpi.govt.nz, with ‘Reporting a suspected pest/disease’ in the subject line, and make sure to include contact name, phone number and location of the discovery. Photos of the pest and plant damage would also be useful.
## Top Export Destinations

### For Year Ended March 2019

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Value (NZ)</th>
<th>Most exports for category</th>
<th>Second most exports for category</th>
<th>Third most exports for category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China (People’s Republic)</td>
<td>$3,272,196,860</td>
<td>All other 8,194,849</td>
<td>Logs 2,755,036,685</td>
<td>Panels 17,296,542</td>
</tr>
<tr>
<td>2</td>
<td>Australia</td>
<td>$575,135,608</td>
<td>All other 136,596,30</td>
<td>Logs 2,218,336</td>
<td>Panels 95,181,600</td>
</tr>
<tr>
<td>3</td>
<td>Japan</td>
<td>$408,747,127</td>
<td>All other 79,462,706</td>
<td>Logs 54,473,892</td>
<td>Panels 202,990,267</td>
</tr>
<tr>
<td>4</td>
<td>South Korea</td>
<td>$393,451,527</td>
<td>All other 1,098,784</td>
<td>Logs 285,850,160</td>
<td>Panels 1,792,987</td>
</tr>
<tr>
<td>5</td>
<td>India</td>
<td>$326,496,242</td>
<td>All other 3,236,137</td>
<td>Logs 244,725,519</td>
<td>Panels 4,451,336</td>
</tr>
<tr>
<td>6</td>
<td>United States</td>
<td>$251,542,925</td>
<td>All other 14,108,612</td>
<td>Logs 54,000</td>
<td>Panels 29,250,928</td>
</tr>
<tr>
<td>7</td>
<td>Indonesia</td>
<td>$145,667,501</td>
<td>All other 2,582,462</td>
<td>Logs 2,132,231</td>
<td>Panels 7,277,459</td>
</tr>
<tr>
<td>8</td>
<td>Thailand</td>
<td>$136,462,037</td>
<td>All other 4,428,351</td>
<td>Logs 26,130,286</td>
<td>Panels 7,277,459</td>
</tr>
<tr>
<td>9</td>
<td>Viet Nam</td>
<td>$102,149,621</td>
<td>All other 3,236,137</td>
<td>Logs 244,725,519</td>
<td>Panels 4,451,336</td>
</tr>
<tr>
<td>10</td>
<td>Taiwan</td>
<td>$86,952,920</td>
<td>All other 353,251</td>
<td>Logs 26,130,286</td>
<td>Panels 7,277,459</td>
</tr>
<tr>
<td>11</td>
<td>Hong Kong</td>
<td>$76,584,662</td>
<td>All other 10,071,925</td>
<td>Logs 64,711,800</td>
<td>Panels 395,741</td>
</tr>
<tr>
<td>12</td>
<td>Other</td>
<td>$630,897,058</td>
<td>All other 51,863,541</td>
<td>Logs 5,128,437</td>
<td>Panels 107,081,846</td>
</tr>
</tbody>
</table>

**Source:** Top Export Destinations Stats NZ YE December 2019
Export Value by Destination and Product
for Year Ended 31 December 2019

Total Export Value by Main Countries of Destination

<table>
<thead>
<tr>
<th>Country of Destination</th>
<th>Total Export Value (NZ$)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>2,726,834,724</td>
<td>2,904,761,827</td>
<td>3,445,393,297</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>723,624,489</td>
<td>743,463,783</td>
<td>673,908,968</td>
<td></td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>483,178,648</td>
<td>512,342,963</td>
<td>460,256,414</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>426,053,047</td>
<td>435,952,082</td>
<td>415,389,411</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>302,734,068</td>
<td>305,572,552</td>
<td>316,692,063</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>250,531,140</td>
<td>247,517,855</td>
<td>253,932,511</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>158,708,145</td>
<td>194,227,433</td>
<td>179,041,650</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>82,056,261</td>
<td>119,496,436</td>
<td>153,431,540</td>
<td></td>
</tr>
<tr>
<td>Taiwan</td>
<td>87,214,989</td>
<td>91,846,072</td>
<td>118,102,023</td>
<td></td>
</tr>
<tr>
<td>Viet Nam</td>
<td>86,920,838</td>
<td>89,565,874</td>
<td>109,666,637</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>91,350,975</td>
<td>82,132,685</td>
<td>101,581,149</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>55,107,264</td>
<td>85,841,045</td>
<td>108,219,728</td>
<td></td>
</tr>
<tr>
<td>Hong Kong</td>
<td>26,119,730</td>
<td>47,062,150</td>
<td>117,728,040</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>43,387,213</td>
<td>56,525,465</td>
<td>34,892,722</td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>36,835,695</td>
<td>34,370,258</td>
<td>40,471,192</td>
<td></td>
</tr>
<tr>
<td>All other destinations</td>
<td>254,023,332</td>
<td>268,962,253</td>
<td>303,154,486</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5,384,680,558</td>
<td>6,219,640,733</td>
<td>6,831,851,831</td>
<td></td>
</tr>
</tbody>
</table>

Exports of Forestry Products by Main Countries of Destination

Notes
1. Values are NZ$ f.o.b. and may include items, e.g. some plywood items, for which no quantities are given.
2. All other forestry products include chips, mouldings, manufactures of paper and paperboard, furniture and miscellaneous forestry products.
3. Other countries are all other countries to which New Zealand has exported forest products during the year.

Source: MPI

Major Forest Product Export Earners
for Year Ended March

Log and Wood Export Values

Notes
1. Paper and paperboard includes Newsprint data, therefore differs from Statistics NZ data.

Source: Major Export Earners Stats NZ and FOA
Source: Log and Wood Export Values Westpac Economic Bulletin 2020
Source: Box 1 SOPI September 2019
Production and Exports of Selected Forestry Products

for Year Ended 31 December 2019

<table>
<thead>
<tr>
<th>Quantity exported</th>
<th>Total production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veneer (m³)</td>
<td>473,614</td>
</tr>
<tr>
<td>Plywood¹ (m³)</td>
<td>356,271</td>
</tr>
<tr>
<td>Fibreboard (m³)</td>
<td>741,631</td>
</tr>
<tr>
<td>Other paper &amp; paperboard (tonnes)</td>
<td>574,215</td>
</tr>
<tr>
<td>Wood pulp (tonnes)</td>
<td>1,440,879</td>
</tr>
<tr>
<td>Sawn timber (000m³)</td>
<td>4,332</td>
</tr>
<tr>
<td>Logs (000m³)</td>
<td>35,899</td>
</tr>
<tr>
<td>Wood chips (BDU)</td>
<td>21,721</td>
</tr>
<tr>
<td>Data not available</td>
<td></td>
</tr>
</tbody>
</table>

Notes
1. Plywood includes laminated veneer lumber.
2. Exports excluded re-exports.

Source Production and Exports of Selected Forestry Products MPI, Statistics NZ and FOA

FOREST PRODUCT EXPORT EARNINGS DURING COVID-19 ALERT LEVEL 4 LOCKDOWN FELL BY $434 m, WHICH IS 39% DOWN ON THE SAME PERIOD IN 2019

Log export shipments in the year to July 2020 were 3 million m³, less than the 12.5 million m³ for the same period in 2019

Notes
1. Other forest products include: structural or moulded wood, furniture and prefabricated buildings
2. Exports excluded re-exports.

Source Production and Exports of Selected Forestry Products MPI, Statistics NZ and FOA

Lumber and Log Production and Exports

Lumber Production and New Zealand Lumber Exports

for Year Ended March

<table>
<thead>
<tr>
<th>Year to 30 June</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logs</td>
<td>2,687</td>
<td>3,337</td>
<td>3,806</td>
<td>2,890</td>
<td>3,230</td>
</tr>
<tr>
<td>Sawn timber &amp; sleepers</td>
<td>830</td>
<td>890</td>
<td>936</td>
<td>850</td>
<td>860</td>
</tr>
<tr>
<td>Pulp</td>
<td>651</td>
<td>828</td>
<td>812</td>
<td>630</td>
<td>650</td>
</tr>
<tr>
<td>Paper &amp; paperboard</td>
<td>488</td>
<td>491</td>
<td>491</td>
<td>470</td>
<td>490</td>
</tr>
<tr>
<td>Panels</td>
<td>476</td>
<td>501</td>
<td>514</td>
<td>480</td>
<td>490</td>
</tr>
<tr>
<td>Chips</td>
<td>59</td>
<td>56</td>
<td>67</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>Other forest products¹</td>
<td>290</td>
<td>281</td>
<td>257</td>
<td>270</td>
<td>290</td>
</tr>
<tr>
<td>Total</td>
<td>5,482</td>
<td>6,384</td>
<td>6,883</td>
<td>5,650</td>
<td>6,010</td>
</tr>
<tr>
<td>Y/Y % change</td>
<td>+6.7%</td>
<td>+16.4%</td>
<td>+7.9%</td>
<td>-17.9%</td>
<td>+6.4%</td>
</tr>
</tbody>
</table>

Notes
1. Other forest products include: structural or moulded wood, furniture and prefabricated buildings

Source Sawn Timber Export Value 2015-20 Stats NZ and MPI
Source Forestry Export Revenue, 2015-21 SOPI March 2020
Source Box 1 MPI, Meat Industry Association and Dairy Companies Association

About 16% of New Zealand’s timber production is consumed in New Zealand, compared with 15% for meat and 5% for dairy production
NZ Logs

Export and Domestic Log Prices
for Year Ended June

Volume of Logs used in Domestic Processing versus Exported
for Year Ended December 2018

A Transformation Scenario for New Zealand

2020

22m³ log exports

6m³ process residue

9m³ logs processed for export

5m³ logs consumed in NZ

2030

10m³ process residue

16m³ logs processed for export

13m³ log exports

7m³ logs consumed in NZ

In 2030
We will need 15 more primary sawmills

Source
Export and Domestic Log Prices: Westpac Economic Bulletin 2020
Volume of Logs used in Domestic Processing versus Exported 2008-2030: Wood Availability Forecast, MPI

Source
A Transformation Scenario for New Zealand Today: MPI, FOA

Notes
Both 2020 and 2030 harvests are assumed at 36mm³ of logs

Source
A Transformation Scenario for New Zealand Today: MPI, FOA
Log Exports by Port

Log Export Quantity and Export Value by Port
For Year Ended March 2019

<table>
<thead>
<tr>
<th>Port of Loading</th>
<th>Export Quantity (m³)</th>
<th>Export value ($NZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland</td>
<td>42,856</td>
<td>8,380,248</td>
</tr>
<tr>
<td>Christchurch</td>
<td>478,160</td>
<td>90,723,458</td>
</tr>
<tr>
<td>Dunedin</td>
<td>1,098,413</td>
<td>178,760,646</td>
</tr>
<tr>
<td>Gisborne</td>
<td>2,899,305</td>
<td>489,849,993</td>
</tr>
<tr>
<td>Invercargill</td>
<td>718,731</td>
<td>131,601,481</td>
</tr>
<tr>
<td>Napier</td>
<td>2,226,602</td>
<td>387,226,415</td>
</tr>
<tr>
<td>New Plymouth</td>
<td>869,063</td>
<td>153,957,151</td>
</tr>
<tr>
<td>Nelson</td>
<td>1,376,655</td>
<td>212,133,872</td>
</tr>
<tr>
<td>Picton</td>
<td>658,660</td>
<td>101,369,144</td>
</tr>
<tr>
<td>Timaru</td>
<td>548,662</td>
<td>91,598,876</td>
</tr>
<tr>
<td>Tauranga</td>
<td>6,791,188</td>
<td>1,143,675,802</td>
</tr>
<tr>
<td>Wellington</td>
<td>1,679,533</td>
<td>280,127,578</td>
</tr>
<tr>
<td>Whangarei</td>
<td>2,676,490</td>
<td>461,425,208</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22,064,319</strong></td>
<td><strong>3,730,829,872</strong></td>
</tr>
</tbody>
</table>

Logs Percentage Export Quantity by Port

- **Tauranga 31%**
- **Other 28%**
- **Christchurch 2%**
- **Dunedin 5%**
- **Gisborne 14%**
- **Invercargill 3%**
- **Napier 11%**
- **Nelson 6%**

Notes
1. Ports with <1% not included.
2. Source: Log Exports by Port MPI
3. Source: Logs Percentage Export Quantity by Port MPI

Sawn Timber Exports by Port
For Year Ended March 2019

Sawn Timber Export Quantity and Export Value by Port

<table>
<thead>
<tr>
<th>Port of Loading</th>
<th>Export Quantity (m³)</th>
<th>Export value ($NZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland</td>
<td>162,025</td>
<td>90,856,571</td>
</tr>
<tr>
<td>Christchurch</td>
<td>83,521</td>
<td>37,373,756</td>
</tr>
<tr>
<td>Dunedin</td>
<td>133,212</td>
<td>48,514,242</td>
</tr>
<tr>
<td>Gisborne</td>
<td>48,350</td>
<td>11,461,840</td>
</tr>
<tr>
<td>Invercargill</td>
<td>92,937</td>
<td>35,508,300</td>
</tr>
<tr>
<td>Napier</td>
<td>357,119</td>
<td>147,702,730</td>
</tr>
<tr>
<td>Nelson</td>
<td>93,393</td>
<td>41,870,986</td>
</tr>
<tr>
<td>Picton</td>
<td>863</td>
<td>214,628</td>
</tr>
<tr>
<td>Timaru</td>
<td>62</td>
<td>20,614</td>
</tr>
<tr>
<td>Tauranga</td>
<td>936,883</td>
<td>517,438,248</td>
</tr>
<tr>
<td>Wellington</td>
<td>3,959</td>
<td>5,107,975</td>
</tr>
<tr>
<td>Whangarei</td>
<td>10,618</td>
<td>3,603,804</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,922,941</strong></td>
<td><strong>939,673,694</strong></td>
</tr>
</tbody>
</table>

Sawn Timber Percentage Export Quantity by Port

- **Tauranga 51%**
- **Other 1%**
- **Auckland 6%**
- **Christchurch 4%**
- **Dunedin 6%**
- **Gisborne 2%**
- **Invercargill 6%**
- **Napier 19%**
- **Nelson 5%**

Sawn Timber Production to December 2019

Source: Sawn Timber Production to March 2000-18 MPI
Source: Sawn Timber Percentage Export Quantity by Port MPI
Source: Sawn Timber Production to December 2019 MPI
Paper, Pulp and Panel Products Production
for Year Ended March

**Paper and Pulp Production**

<table>
<thead>
<tr>
<th>Year</th>
<th>Mechanical pulp¹</th>
<th>Newsprint</th>
<th>Chemical pulp²</th>
<th>All other paper and paperboard³</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>2010</td>
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<tr>
<td>2019</td>
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</tr>
</tbody>
</table>

**Panel Products Production**

<table>
<thead>
<tr>
<th>Year</th>
<th>Fibreboard – all types⁴</th>
<th>Particleboard</th>
<th>Veneer</th>
<th>Plywood⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td></td>
<td></td>
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<tr>
<td>2019</td>
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</tr>
</tbody>
</table>

**Notes**

¹ Mechanical Pulp is those export items in HS item grouping 4701.
² Chemical Pulp is those export items in HS groupings 4702, 4703, 4704 and 4705.
³ All other paper and paperboard includes printing and writing paper, other paper and paperboard.
⁴ Fibreboard includes MDF, hardboard & softboard.
⁵ Plywood includes laminated veneer lumber.

**Source** Paper, Pulp and Panel Products Production MPI
The Forest Industry Safety Council is a pan-industry initiative to reduce and ultimately eliminate deaths and serious injuries in New Zealand plantation forestry, by;

- Improving leadership of safety
- Providing easy-to-use forest safety resources through www.safetree.nz website
- Sharing better information on what’s causing injuries
- Getting companies and workers more competent
- Helping the sector adapt to the Health and Safety at Work Act 2015.

**Health and Safety in the Forest Industry**

**Fatalities**

<table>
<thead>
<tr>
<th>Year</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
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<tr>
<td>2014</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
</tr>
<tr>
<td>2015</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
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<td>2016</td>
<td>📘</td>
<td>📘</td>
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<td>📘</td>
<td>📘</td>
<td>📘</td>
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<tr>
<td>2017</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
</tr>
<tr>
<td>2018</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
</tr>
<tr>
<td>2019</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
</tr>
<tr>
<td>2020</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
<td>📘</td>
</tr>
</tbody>
</table>

**Severe Injuries**

Rate of injuries to workers resulting in more than a week off work

**How Do We Compare?**

Rate of injuries to workers resulting in more than a week off work

**Notes**

1 Rolling average last four quarters.
2 Rolling average last four quarters per 1,000 workers.

**Source**

WorkSafe/MPI/FISC

Injury data in this dashboard is based on ACC claims where someone receives a period of weekly compensation within a quarter. This data lags by 6 months due to claim processing time.
### Forestry Workforce

**Annual total value chain impact per 1,000 hectares – FTEs by land-use**

- **Plantation forestry**
- **Permanent carbon forestry**
- **Sheep and beef farming**

**Employees per 100ha**
Forestry / Dairy / Sheep & Beef

<table>
<thead>
<tr>
<th>Year</th>
<th>Forestry area (ha)</th>
<th>Workers in-forest</th>
<th>Workers per 1000 ha</th>
<th>Meat and Wool area (ha)</th>
<th>Workers on-land</th>
<th>Workers per 1000 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>1.83m</td>
<td>11,100</td>
<td>6.1</td>
<td>10.6m</td>
<td>42,390</td>
<td>4.0</td>
</tr>
<tr>
<td>2012</td>
<td>1.72m</td>
<td>8,300</td>
<td>4.8</td>
<td>9.1m</td>
<td>33,350</td>
<td>3.5</td>
</tr>
<tr>
<td>2016</td>
<td>1.70m</td>
<td>7,500</td>
<td>4.4</td>
<td>8.5m</td>
<td>30,890</td>
<td>3.6</td>
</tr>
</tbody>
</table>

**Source**
- Annual total value chain impact per 1,000 hectares – FTEs by land-use: Economic Impacts of Forestry in New Zealand, PwC 2020
- Employees per 100ha: Economic Impacts of Forestry in New Zealand, PwC 2020
- Forest and Meat/Wool Workforces: Stats NZ

### Industry Training 2018

**Trainee Count**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry</td>
<td>3,500</td>
</tr>
<tr>
<td>Solid Wood Processing</td>
<td>2,500</td>
</tr>
<tr>
<td>Wood Panels</td>
<td>1,500</td>
</tr>
<tr>
<td>Pulp and Paper</td>
<td>1,000</td>
</tr>
<tr>
<td>Furniture</td>
<td>500</td>
</tr>
</tbody>
</table>

**Trainee by Qualification Level**

- **Level 2**
- **Level 3**
- **Level 4**
- **Level 5**

**Trainees by Ethnicity**

- **NZ**
- **European**
- **Maori**
- **Pacifica**
- **European**
- **Asian**
- **Other/Not stated**

**Trainees by Age**

- **19 and under**
- **20 – 29**
- **30 – 39**
- **40 – 49**
- **50 – 59**
- **60+**

**Source**
- Industry Training 2018: MPI
Free forestry training*

Includes forestry apprenticeships, traineeships and micro-credentials

Employers of first or second-year apprentices may be eligible for wage subsidies

Micro-credentials are available in tree planting and the forestry environment

Flexible programmes to suit your business.

* Forestry qualifications are free from 01 July 2020 to 31 Dec 2022

Contact your account manager to talk about free training today

0800 526 1800
freetraining@competenz.org.nz
competenz.org.nz
**Forest Growers Levy Trust**

The 2014 to 2019 Harvested Wood Material Levy Order has expired and has been replaced by a new levy order which will run to 2025, based on a 89.1% affirmative vote of levy payers. The rate for the first year of the new levy has continued at 27 cents per tonne of harvested log. The levy generated in the year to the end of 2019 was $9,710,252. The levy income is invested in industry good projects by the Forest Growers Levy Trust, which has contracted the Forest Owners and Farm Forestry Associations to manage the annual work programme. The annual work programme consists of research and work which will benefit the industry as a whole. More information, including the 2019 Annual Report, can be found at www.fglt.org.nz.

**A Forestry Roadmap for Aotearoa New Zealand**

**Vision for 2050:** Forestry will be New Zealand's number 1 primary sector and exemplify the best plantation forest management in the world.

01
Tree growth and forest production efficiency will have both doubled.

02
Our increasingly diverse forests will provide valuable products tailored to our customers' needs.

03
People will be attracted to work in forestry because they will be safe, valued and well trained.

04
Expanding commercial plantation forestry will have been the prime means of achieving New Zealand’s net zero carbon goal by 2050, while providing other substantial environmental and social benefits.

05
Our licence to operate will have widespread support.
**How the FGL is Invested**

**51.3% Research, Science and Technology**
The large research programme is focussed on improving the profitability and sustainability of forest growers large and small and extends across the value chain from genetics to the harvesting supply chain. It covers research on raising the productivity of radiata pine through better site and stand management, understanding and responding to needle diseases such as red needle cast, finding longer term solutions to the wilting conifer problem in parts of New Zealand and better understanding of forest fire behaviour.

Two new programmes commenced during the year, one on improving the efficiency and cost effectiveness of vegetative plant propagation systems and the other on introducing new automation and robotics technology into the post-harvest supply chain with the aim of enhancing safety and attractiveness of forestry work.

Licence to operate issues were addressed with projects to reduce the incidence of tree breakage on steep land, the development of harvesting equipment to remove harvesting slash from waterways on steep land. The programme also has a focus on other commercial tree species and overcoming some of the processing challenges to give land owners greater confidence to grow these species. A joint project with the Radiata Pine Breeding Company to assess growth performance of the latest improved genetics was also started during the year.

**15.9% Operational Costs (incl. Administration)**
Represents Levy collection and database maintenance costs, business compliance costs and all direct costs associated with supporting FGLT secretariat and the planning, management and delivery of the annual Work Programme. In 2019 the conduct of the Harvested Wood Materials Levy Referendum of forest owners, including meetings, advertising, surveying and commissioning the voting process.

**8.3% Forest Biosecurity**
Forest biosecurity surveillance of high-risk sites including field activities and diagnostic identification of samples. Work has continued on the development and field trialling of a general surveillance app – Find-A-Pest – with co-investment by MPI and other stakeholders, and work continued alongside other sectors on the development of a Plant Production Biosecurity Scheme.

**0.5% Fire**
The Levy helps fund the fire season awareness campaign conducted by Fire and Emergency New Zealand, along with promoting fire awareness through the established Love our Forests campaign. The committee also partners with FENZ throughout the year to support rural fire prevention and management.

**3.3% Training and Careers**
The Training and Careers Committee has been set up to serve the needs of small, medium and large plantation forest owners, by bringing together in one forum all the disparate organisations that deliver, manage, promote or fund plantation forest industry training and careers initiatives.

The purpose is to consult on and develop a co-ordinated view on plantation forestry standards, qualifications and training needs and work with the Forest Industry Safety Council (FISC), Forest Industry Contractors Association (FICA) and Competenz, as well as government, funders and training providers to ensure standards and training solutions are delivering on those needs and to promote forestry careers, both directly and by working with and through other agencies. The Training and Careers committee composition includes forest owners (FOA and FFA), contractors, Competenz, government and training providers with an interest in forestry.

The Committee is responsible for the Forestry Careers website, overseeing the site development and maintenance: https://www.forestrycareers.nz/about-us/

In addition the committee promotes forestry careers, both directly and by working with site and through other agencies and develops and distributes resources to assist training and career providers.

A small number of training providers are also assisted directly, with the provision of FGLT funding and targeted resources. Annual support for the University of Canterbury School of Forestry forest engineering department, the Grow Me and Generation programmes and Tokomairiro School forestry training are examples of direct support for the forest training sector. Future Foresters are supported in providing professional development courses for their members and to represent the industry at career functions nationally.

The committee has been instrumental in providing industry representation in the government Reform of Vocational Education (RoVE) review. This is a major reset of vocational training in NZ with a heavy requirement for industry representation.

The industry has put together the Forestry Workforce Action Plan. This plan will be overseen by a Forestry Council. The Training and Careers committee is the conduit to ensure forest owner input.

**0.7% Forest Resources and Environment**
Developing policies on forest growing and environment issues, including collective data on FSC certified forest companies’ biodiversity management, climate change, freshwater management and carbon sequestration. The committee provides advice to government on environmental issues. It supports work to provide guidance to kea protection in plantation forests and management of other rare species.

**9.2% Health and Safety**
This is the joint industry contribution to support the work of the Forest Industry Safety Council (FISC). Major initiatives supported include: Certification, Growing our Safety Culture initiative (which was nominated as a finalist in the 2019 NZ Workplace H&S Awards) a mobile phone app, which gives forestry workers more control over improving their own health, the Safetree website and Facebook page, which are used to share resources, information and safety alerts across the industry.

**8.4% Promotions**
NZ Wood/Love our Forests campaign in print, television, social media and highway billboards. Publications, including Facts and Figures, external memberships, sponsorships. Close coordination with the Training and Careers committee for the launch and maintenance of Careers and Training website and collateral material for Regional Wood Councils. Regional support of careers promotion. Public opinion surveys.

**1.2% Small and Medium Forest Enterprises**
This is a forum for owners and managers of small to medium sized forests. It includes communication activities such as field days, publications, websites, workshops and newsletters. Two projects were completed in 2019, one to pilot the feasibility of amalgamating small woodlots, and the other to establish the particular research needs of small growers (for example, harvesting techniques that may be better suited for smaller woodlots).

**1.3% Transport**
The committee works with the Log Transport Safety Council. The committee has also developed in conjunction with SCION a Log Transport Calculator to analyse the transport volumes at a regional or even individual road level. The committee represents forest grower interests at local and central government levels.
**Sector Agreements**

**Plantation Forestry Rural Fire Control Charter 2017**
FOA and FFA signed a charter with Fire and Emergency New Zealand for the integration period as Fire and Emergency moves to become a fully unified, national organisation.

**Forest Government Industry Agreement for Biosecurity 2015**
The FOA has signed a Government Industry Agreement to protect New Zealand forests from introduced pests, weeds and diseases through sharing of costs and decision making. The Forest Biosecurity Surveillance programme began on 1 July 2016, covering all commercial plantations. PineNet is a forest industry network to respond to a major incursion.

**Forest Industry Safety Council 2015**
The FOA is participating in FISC as the pan-industry Health and Safety initiative. FISC has an independent cross sector board. FISC’s mission is to reduce the rate of serious injury and fatalities in plantation forests, with an ultimate goal of eliminating them.

**Cooperation with Farmers 2013**
The MOU with Federated Farmers, FOA and FFA is to manage relationships between forest owners/managers and their farming neighbours to promote co-operation and constructive neighbourly relations. A guiding principle is timely communication is the key to good neighbourly relations.

**Log Transport Safety Accord 2008**
An agreement between FOA/FFA, the Road Transport Forum New Zealand and the Log Transport Safety Council to reduce the incidence of log truck accidents on roads.

**Eliminating Illegal Forest Products 2008**
The FOA, WPMA and Pine Manufacturers Association joined NGOs in calling on the New Zealand government, importers, processors, retailers, New Zealand forest and plantation managers and processors of forest and plantation products, to strongly oppose the importation and use of illegally harvested and traded forest products in New Zealand.

**New Zealand Climate Change Accord 2007**
An agreement between FOA/FFA, the Timber Design Society and eight NGOs acknowledging the contribution of indigenous and plantation forests to mitigate climate change, which also provides a renewable, reusable and recyclable resource.

The Accord endorses the principle of polluter pays to cover all greenhouse gases with all sectors taking responsibility and with time bound targets.

**New Zealand Forest Accord 1991 and 2007**
The Forest Accord is between forest and timber groups and 10 NGOs to agree on; defining areas unsuitable for forestry, maintaining existing natural forest, recognition of commercial forestry as essential, indigenous forest extraction only on a sustainable basis and new forests not disturbing natural indigenous vegetation.

---

**Wood**

Wood is the world’s most renewable raw material. For this reason forests and the wood they provide are vital in the fight against climate change. As the effects of global warming impact on our environment, the use of renewable and sustainable building materials has never been so important.

The stages of the wood story – planting and renewal, growth, harvesting and use – are part of a renewable cycle that takes and stores carbon dioxide from the atmosphere, making wood a better-than-carbon-neutral building material.

**Wood is the only construction material which has absorbed CO$_2$ from the atmosphere when produced, not emitted more**
During its production, one tonne of:
- Cement – has released one tonne of CO$_2$ into the atmosphere
- Steel – has released 1.24 tonnes of CO$_2$ into the atmosphere
- Aluminium – has released 9.3 tonnes of CO$_2$ into the atmosphere

Wood, however, has absorbed a net 1.7 tonnes of CO$_2$ from the atmosphere, over and above the energy expended in growing, harvesting and processing.

**The more timber you use in a house, the more CO$_2$ you remove from the atmosphere**
- It takes around 20 trees to build an average house frame
- A steel house frame has added 4.5 tonnes of CO$_2$ to the atmosphere
- A wooden house frame has absorbed 9.5 tonnes of CO$_2$ from the atmosphere
- Choosing timber options for an average house can take around 20 tonnes net of CO$_2$ out of the atmosphere (saving the equivalent of 150 trips Auckland to Wellington, or 7.1 years of car use)
- Using alternative materials (concrete, steel, brick and aluminium) can add 24 tonnes net CO$_2$ to the atmosphere (costing the equivalent of 180 trips Auckland to Wellington, or 8.6 years of car use).

Using wood is something we can all do to help the environment. By demanding and using more sustainably produced wood, we can ensure that more trees will be planted and more carbon dioxide will be absorbed from the atmosphere.

The result is a better world for ourselves, our families and future generations. It’s simple.
New Zealand’s Greenhouse Gas Inventory

The Carbon Cycle
Planting trees begins a cycle that continuously removes, releases and re-absorbs greenhouse gases such as carbon dioxide. As trees grow, they absorb carbon dioxide through the process of photosynthesis. The carbon dioxide absorbed by the growing forest remains stored within the wood products used throughout the lifetime of the building structure or product.

When a structure or product reaches the end of its lifetime, the carbon dioxide is released back into the atmosphere as the wood decays or is burnt as fuel.

Wood can be recycled to extend its lifetime and slow down the natural release of carbon dioxide back into the atmosphere. Once the carbon dioxide is released, it is available to be re-absorbed by growing trees.

New Zealand’s Greenhouse Gas Inventory
In 2018, New Zealand’s total gross emissions were 78.9 million tonnes of carbon dioxide (Mt CO₂-e). In 1990, gross emissions were 65.8 Mt CO₂-e.

In 2018, 23.4 Mt CO₂-e was removed from the atmosphere by the forestry sector, compared with 31.5 Mt CO₂-e in 1990. Forestry sector removals in 2018 reduced total emissions to 55.5 Mt CO₂-e net or a 30% offset.

Agriculture continued to be the largest contributor to New Zealand’s Greenhouse Gas Emissions, with 48% of the total at 37.7% Mt CO₂-e, compared with energy at 41%.

Total CH₄ and N₂O emissions in 2017 attributable to dairy cattle, beef cattle, sheep and deer

<table>
<thead>
<tr>
<th>2018-20 Population (millions)</th>
<th>Emissions per each (tonnes CO₂-e)</th>
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</thead>
<tbody>
<tr>
<td>Sheep</td>
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<td>Deer</td>
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<td>Petrol vehicles</td>
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</table>

How is carbon removed from the atmosphere by New Zealand’s forests?
Forests act as carbon sinks – a reservoir which removes and stores more carbon from the atmosphere than it releases. Trees use carbon dioxide (CO₂) as part of their ‘breathing’ cycle – taking in CO₂ and storing it within roots, trunks and branches – and releasing oxygen.

A young forest will remove small amounts of CO₂ until the trees establish and when forests will remove the most carbon. As a forest ages and its growing process slows, it will revert to absorbing less carbon again.

At harvesting, the forest ceases to be a carbon sink. But instead of releasing all the carbon it has stored, the harvested wood retains some of it. All wood products store carbon that will eventually be released, however the rate at which that carbon is released depends on the type of product and the type of treatment the wood has undergone.

The amount of carbon removed by New Zealand’s forests is therefore dependent on the coverage of forestland, the age and species of the trees and the rate of harvest.

New Zealand has committed to reduce net greenhouse gas emissions to 30% below 2005 levels by 2030 and to zero by 2050.

Emissions Units Traded Volume and Price Changes

Notes
1 Based on figures from the Agricultural Inventory Model, used in New Zealand’s Greenhouse Gas Inventory 1990-2017 report published by MfE
* Automobile Association
+ Motor Industry Association
Source MfE, FOA
Source PCE, Primary sector bodies
Forestry the solution in Carbon Zero pathways

The Productivity Commission has presented three pathways to achieve a carbon neutral economy by 2050. All pathways rely on new forest planting.

The pathways are; Policy Driven, Disruptive Decarbonisation (e.g. artificial meat widespread in the market) and Stabilising Decarbonisation (e.g. methane vaccine for cows becomes available).

**Policy Driven**
2.8 m ha new forest (1.9 m ha exotic, 0.9 m ha indigenous)
45 MtCO$_2$e forest carbon sequestration

![Graph showing CO$_2$e forest carbon sequestration over time for Policy Driven pathway]

**Disruptive Decarbonisation**
2.1 m ha of new exotic forest
45 MtCO$_2$e forest carbon sequestration

![Graph showing CO$_2$e forest carbon sequestration over time for Disruptive Decarbonisation pathway]

**Stabilising Decarbonisation**
2.3 m ha new exotic forest
50 MtCO$_2$e forest carbon sequestration

![Graph showing CO$_2$e forest carbon sequestration over time for Stabilising Decarbonisation pathway]

Forests first registered in the ETS between 1 January 2019 and 31 December 2022 will have the option to move to averaging in 2023. Forests registered before 1 January 2019 will remain on the stock change (current) approach.
FSC certified plantation forests contribution to social, economic and environmental wellbeing

Visitors

- 663,000 Biking
- 260,000 Walking
- 35,000 Hunting
- 26,000 ‘Other’

Community Use of Forests
984,000 Visitors Per Year

Including fishing, firewood, motorsports, watersports, cultural

Area Certification Statistics

Area under certification: 1,167,885 ha

- 920,589 ha Area planted in forest
- 23,069 ha Area harvested in year to June 2019
- 14,982,455 Tonnes of logs harvested in year to 2019
- 9,315 ha High conservation value areas protected
- 86 Special Areas managed by forest companies

Indigenous areas as part of working forest (weighted average): 19%

Species Biodiversity

Species Found in FSC Forests

- Falcon
- Short or long-tailed Bat
- Kiwi
- Blue Duck
- Kākā
- Kea
- Kākabeak (shrub)
- Kōkako
- Galaxiids (fish)
- Barking or Green Gecko
- NZ Dotterel
- Archey’s or Hochstetter’s Frog
- Dactylanthus (wood rose)

Number of FSC certified companies reported (out of a total of 19). Threatened and at risk species can be found in multiple forests owned by a single forest company.
Regional Biodiversity

Area of Native Vegetation Within FSC Certified Plantation Forests

<table>
<thead>
<tr>
<th>Region</th>
<th>Hectares</th>
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<tbody>
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<td>Horizons</td>
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</table>

Multiple-use

Plantation forests have multiple uses and functions and produce mainly wood fibre and logs for construction or other purposes. They also provide and support other goods.

Terms, Names and Sites

Area and volume

- An average Pinus radiata tree yields 2.4 m$^3$ of wood at harvest.
- 1 hectare of 28 year-old Pinus radiata contains between 650 and 800 m$^3$ of wood.
- 1 hectare grows up to 28 m$^3$ of wood each year.
- A log truck and trailer carries approximately 30 tonnes of logs.
- A log ship contains approximately 30-35,000 tonnes of logs.
- By weight, the ratio of carbon to oxygen in carbon dioxide is 1-2.66.

Abbreviations

- AAU: Assigned Amount Unit
- CER: Certified Emissions Reduction
- ERU: Emissions Reduction Unit
- FAO: Food & Agriculture Organization of the United Nations
- FFA: New Zealand Farm Forestry Association
- FGLT: Forest Growers Levy Trust
- FICA: Forest Industry Contractors Association
- FIEA: Forest Industry Engineering Association
- FISC: Forest Industry Safety Council
- FOA: New Zealand Forest Owners Association
- FSC: Forest Stewardship Council
- MfE: Ministry for the Environment
- MPI: Ministry for Primary Industries
- NEFD: National Exotic Forest Description
- NZIER: New Zealand Institute of Economic Research
- NZU: NZ Units
- PEFC: Programme for the Endorsement of Forest Certification
- SOPI: Situation and Outlook for Primary Industries
- Stats NZ: Statistics New Zealand
- WPMA: Wood Processors and Manufacturers Association

Facts & Figures organisation sites

- Competenz: www.competenz.org.nz
- FAO: www.fao.org/forestry
- FFA: www.nzffa.org.nz
- FGLT: www.fglt.org.nz
- FIEA: www.fiea.org.nz
- FISC: www.safetree.nz
- FOA: www.nzfoa.org.nz
- FSC: www.nz.fsc.org/en-nz
- MfE: www.mfe.govt.nz
- MPI: www.mpi.govt.nz
- NZIER: www.nzier.org.nz
- NZFOA: www.nzfoa.org.nz
- PEFC: www.pefc.org
- Rare Species: www.rarespecies.nzfoa.org.nz
- Scion: www.scionresearch.com
- Statistics NZ: www.stats.govt.nz
- WPMA: www.wpma.org.nz
- WorkSafe NZ: www.business.govt.nz/worksafe
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Disclaimer

Every effort has been made to ensure that the statistics and information found within this publication are accurate and fair. The Forest Owners Association provides no warranty as to accuracy and shall not be liable to any person for any loss or damage for the use, directly or indirectly, of the information.
## Log Pricing Data

### Export (NZS per JAS m$^3$ f.o.b)

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Limited response – very small volume traded.

Weighted averages have been used from June 2017. Please take care when comparing with previous quarters.

### Domestic (NZS per tonne delivered at mill)

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### Notes
- Weighted averages have been used from June 2017. Please take care when comparing with previous quarters.
- Limited response – very small volume traded.
- Data not available.

### Source
- Log Pricing Data (MPI)
- Forest, Dairy and Coffee Prices: Global Dairy Trade Price Index over 10 years, Macrotrends
- Coffee Prices – 45 Year Historical Chart, MPI: Log Pricing Data

---

### Forest, Dairy and Coffee Prices

- **Coffee** – USD per pound
- **Dairy** – GDT price index
- **Logs** – NZ export average price

---

The photo on page 46 came from Phil Taylor, Port Blakely NZ Ltd.
High demand for forestry workers skilled in mechanised harvesting means there is plenty of opportunity to enter this profession after gaining the right training.

Toi Ohomai Institute of Technology’s new programme, the New Zealand Certificate in Forest Harvesting Operations (Level 3) with a strand in Basic Machine Operations, provides a 12-week intensive training programme. You will learn how to safely operate the machinery used in forest harvesting through training on state-of-the-art forest simulators and valuable time in a real machine in a simulated work environment.

The training is provided on demand, so call us today!

New Zealand Certificate in Forest Harvesting Operations (Level 3), strand in Basic Machine Operations

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