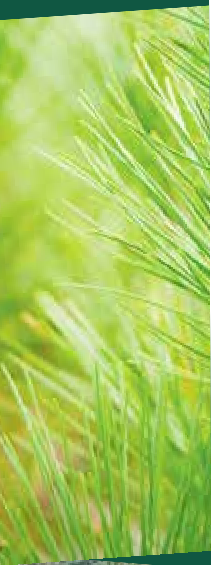
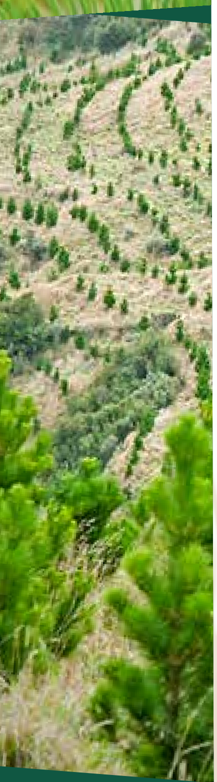
Te Uru Rākau
Forestry New Zealand

PROVISIONAL ESTIMATES OF **TREE STOCK SALES AND FOREST PLANTING IN 2018**





PURPOSE

This report provides the provisional estimates of the sales of tree stocks and the areas of commercial forest planted in 2018. It also provides an estimate of mānuka seedling sales and the area planted.

BACKGROUND

Each spring the Ministry for Primary Industries (MPI) undertakes a survey of tree stock sales from commercial forestry nurseries. The results are aggregated to produce estimates of total national sales, and then modelled to estimate the area of planting by species, species groups, and total area.

In 2018, all of the 25 commercial forestry nurseries completed the survey. Eleven nurseries undertaking bulk sales of mānuka seedlings also completed the survey. (Some of which are also commercial forestry nurseries).

TREE STOCK SALES

Tree stock sales reported in 2018 totalled 59.9 million seedlings, compared to 51.3 million sold in 2017. The main increase was in radiata pine where sales rose by 8.6 million seedlings (18 percent). Table 1 provides a breakdown of sales since 2011, by species and species groups.

Table 1: Tree Stock Sales from 2011 to 2018 (millions)

	2011	2012	2013	2014	2015	2016	2017	2018p
Radiata pine	58.9	64.6	48.5	47.2	45.8	49.3	48.0	56.6
Douglas-fir	5.1	4.0	3.1	1.9	2.0	2.2	2.0	1.4
Other softwoods	1.3	1.3	0.7	0.8	0.5	0.4	0.7	0.9
All hardwoods	2.3	2.6	1.9	0.9	1.3	0.8	0.7	1.0
TOTAL	67.6	72.5	54.1[1]	50.8	49.5[1]	52.7	51.3[1]	**59.9**

p Provisional.

Note

1 Individual entries may not add up to totals due to rounding to the nearest 100,000.

RADIATA PINE

Annual radiata pine tree stock sales by categories are shown in Table 2.

Table 2: Radiata Pine tree stock sales from 2003 to 2018 (millions)

Year		GF < 14	GF 14 – 19	GF > 19	Cuttings	GF Plus	TOTAL[1]
2003		0.1	14.6	7.6	14.0	11.2	**47.4**
2004		less than 0.1	13.8	4.8	16.0	8.8	**43.5**
		GF < 14	**GF 14 – 19**	**GF > 19**	**Cuttings/clones**		
2005		less than 0.1	9.0	10.6	12.9		**32.6**
2006		less than 0.1	7.6	11.3	9.9		**28.8**
2007		0.1	11.2	17.2	8.1		**36.7**
2008		0.3	11.7	15.4	8.8		**36.2**
2009		0.2	10.9	17.0	9.6		**37.7**
	Stand Select[2]	**GF < 14**	**GF 14 – 19**	**GF > 19**	**Cuttings/clones**		
2010	1.9	1.1	17.6	13.2	12.6		**46.4**
2011	12.2	0.4	16.1	16.8	13.4		**58.9**
2012	16.6	0.7	15.1	20.3	11.9		**64.6**
2013	9.9	less than 0.1	9.1	17.1	12.3		**48.5**
2014	5.8	0.2	11.6	14.5	15.1		**47.2**
2015	4.4	0.2	10.1	17.1	14.0		**45.8**
2016	3.4	less than 0.1	11.0	20.6	14.3		**49.3**
		(Under open pollinated)	**Open pollinated**	**Control pollinated**	**Cuttings/clones**		
2017	3.1		9.4	21.3	14.2		48.0
2018	4.1		13.3	23.6	15.6		**56.6**

Notes

1. Individual entries may not add up to totals due to rounding to the nearest 100,000.
2. Stand select seed is collected by Radiata Pine Breeding Company shareholders in accordance with a set of criteria that authenticate the seed source and the genetic quality of that source.

Table 3 provides a breakdown of radiata pine sales between control pollinated stock (previously GF >19 and cuttings and clones) and open pollinated stock (previously GF ≤ 19 and Stand Select). The trend seen between 2011 and 2017 of an increasing focus on control pollinated seedlings, cuttings and clones in the percentage of the area planted has not been maintained in 2018, although total sales of control pollinated radiata pine and cuttings/clones increased. This may reflect constraints on the supply of the best control pollinated seed.

Table 3: Estimated percentages of total area of Radiata Pine planting by categories

Radiata pine Rating	2011	2012	2013	2014	2015	2016	2017	2018[p]
Open pollinated seedlings and stand select	49	48	38	36	31	28	25	30
Control pollinated seedlings, cuttings/clones	51	52	62	64	69	72	75	70

p Provisional.

FOREST PLANTING

The total area of forest planting in the winter of 2018 is provisionally estimated from the nursery survey data and associated modelling to be 57,000 hectares. The modelling generated a national average stocking rate for radiata pine of 1,004 stems per hectare.

Table 4: Estimated areas[1] planted in 2018 by species and species groups

Species/species group	Area (hectares)	Percentage of total area
Radiata pine	55,000	97
Douglas-fir	less than 1,000	1
Other exotic softwoods	less than 1,000	1
All exotic hardwoods	less than 1,000	1
Total	**57,000**	**100**

Note
1. The estimated areas in Table 4 have been rounded to the nearest 1000 hectares or recorded as less than 1000 hectares where the area is between 1 and 999 hectares.

The total area of new planting in 2018 is estimated to be in the order of 9,100 hectares. A survey of large-scale forest owners and managers/consultants indicates they established new plantings of about 6,900 hectares. (This may include some areas of small-scale forests). A further 2,200 hectares of plantations are estimated to have been established by small-scale owners under MPI's forestry schemes.

Replanting of harvested areas is provisionally estimated to be 47,900 hectares in 2018. This is the residual area from the estimated total area of planting (57,000 hectares) minus the estimated area of new planting (9,100 hectares).

The total areas of new planting and replanting by species and species groups for 2018 are provided in Table 5. These allocations are based on the estimated percentage of total planting accounted for by each species or species group.

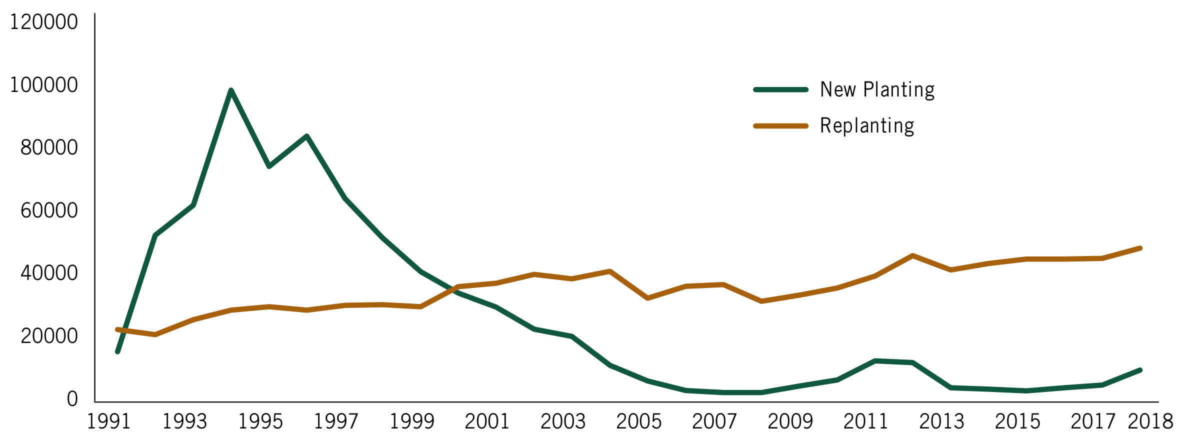
Table 5: Estimated areas[1] (hectares) of new planting and replanting for 2018 (provisional)

Species/species group	New Planting	Replanting
Radiata pine	9,000	46,000
Douglas-fir	less than 1,000	less than 1,000[2]
Other exotic softwoods	less than 1,000	less than 1,000
All exotic hardwoods	less than 1,000	less than 1,000
TOTAL	**9,100**	**47,900**

Notes
1. The estimated areas are either rounded to the nearest 1 000 hectares or recorded as less than 1,000 hectares where they are between 1 and 999 hectares.
2. May include harvested areas of radiata pine replanted with Douglas-fir.

Figure 1 provides a visual outline of the estimated areas of new planting and replanting since 1991.

Figure 1: Estimated areas of new planting and replanting



Estimates for 2018 are provisional.

LOOKING TOWARDS 2019

The 2018 nursery survey asked commercial forestry nursery managers whether they expect sales in 2019 to be similar to, lower or higher than, 2018. Of the 20 nurseries that responded, 5 indicated they expect sales to be at similar levels, and 15 indicated they expect sales to be higher in 2019. No nurseries suggested sales would be lower in 2019.

REVIEW OF 2018 PLANTING ESTIMATES

The nursery survey and the associated modelling are only intended to provide early approximations of the areas of total planting, and planting by species or species groups for the year. These are subsequently reviewed and revised as necessary when data are received directly from forest owners through the annual survey for the National Exotic Forest Description (NEFD).

PROVISIONAL ESTIMATES FOR MĀNUKA

This is the third year that MPI has gathered information on mānuka seedling sales to estimate the area planted. Eleven nurseries were identified as undertaking bulk sales of mānuka. It is estimated that 7.1 million seedlings were sold and about 4 600 hectares were planted, mostly for the honey industry, some for revegetation and some for research on mānuka oil production.

These estimates show a significant decrease compared to those reported for 2017 (9.2 million seedlings and 5,900 hectares). They may reflect landowners delaying planting until details of the revised grant scheme under the One Billion Trees Programme were available, and a cautious approach by landowners and investors in plantation mānuka for honey as it is a developing industry.

ACKNOWLEDGEMENTS

MPI thanks all the nursery managers who supplied information in 2018 that enables these estimates of tree stock sales and planted areas to be made.

FOR MORE INFORMATION

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