

# DATA

## COLLECTION AND ESTIMATION

# 3

In 2006, NEFD questionnaires were sent to approximately 120 forest owners and managers who owned more than 1 000 hectares of planted production forest. The questionnaire used can be found in Appendix 2. A 95 percent response rate to the survey was achieved.

For forest owners with less than 1 000 hectares, the data collected in the comprehensive 2005 NEFD survey continues to be used. Aside from new planting it is assumed that relatively minor changes in area will have occurred from these forest owners during the 12-month period ending 31 March 2006. For details of the 2005 NEFD survey refer to *A National Exotic Forest Description as at 1 April 2005*.

In addition to the data collected in the 2006 and 2005 NEFD surveys, the results from the 2004 AgriQuality New Zealand Small Forest Grower Surveys continue to be used in the 2006 database. Details on the methods used by AgriQuality are available in the *Small Forest Grower Survey Report* (AgriQuality New Zealand, 2005).

In the 2004 and 2005 NEFD databases the Small Forest Grower Survey data collected by AgriQuality was incorporated in the NEFD database in aggregate form.

In the 2006 NEFD database the AgriQuality data for owners with more than 40 hectares of forest has been entered for each owner. This has meant the addition of approximately 660 new forest owners in the NEFD database. These new owners will be included in future NEFD surveys. For owners with less than 40 hectares of forest the AgriQuality Small Grower Survey is still included in the NEFD database in aggregated form.

New planting not directly captured in the 2006 NEFD survey has been imputed.

### »» NEW PLANTING IMPUTATION

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

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

	CALENDAR YEAR OF PLANTING (HA)													
	1992 (HA)	1993 (HA)	1994 (HA)	1995 (HA)	1996 (HA)	1997 (HA)	1998 (HA)	1999 (HA)	2000 (HA)	2001 (HA)	2002 (HA)	2003 (HA)	2004 (HA)	2005 (HA)
Total new planting <sup>1</sup>	50 200	61 600	98 200	73 900	83 600	63 700	51 200	40 000	33 600	30 100	22 100	19 900	10 600	6 000
New planting collected in postal surveys <sup>2</sup>	29 700	39 800	69 600	68 600	65 500	45 600	36 800	26 800	25 300	18 700	15 200	11 800	5 800	2 900
New planting adjustments <sup>3</sup>	20 500	21 800	28 600	15 300	18 100	18 100	14 400	13 200	8 300	11 400	5 900	8 100	4 800	3 100

#### Notes

1. As estimated from the nursery surveys undertaken by the Ministry of Forestry and the Ministry of Agriculture and Forestry.
2. The area of planted forest as collected in postal surveys excluding restocking. Any new information captured in any subsequent year is deducted from the imputation in the appropriate year.
3. The difference between total new planting and new planting collected in postal surveys.

It has been recognised that the areas of new planting were substantially underestimated in the NEFD databases prior to 1995.

In the 2006 NEFD database, adjustments have been made to the areas established between 1992 and 2005 to account for the areas of new planting not collected in the postal surveys. This same method of imputation has been used in the compilation of the NEFD databases since 1995.

The national new planting adjustments were distributed into territorial authorities using the proportions indicated from the new planting collected in the postal survey. Table 9.7 (page 24 and 25) shows how the adjustments for recent new planting have been distributed across territorial authorities.

Within each territorial authority the 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.

