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## Christmas trees for high summer

**Kevin Line** propagates pohutukawa, the New Zealand Christmas tree.

Fig. 1 Pohutukawa in its native New Zealand.

Since autumn 2008 I have been propagating *Metrosideros excelsa*, also known as pohutukawa. One of twelve *Metrosideros* species, all native to New Zealand (fig. 1), it has an incredible resistance to gales and is salt tolerant, so it's often found growing on rocks and shores

at the coast, sometimes overhanging the high-tide line. On the island of Tresco in the Scilly Isles it's now used as a major windbreak, replacing the old Monterey pines. Introduced to South Africa, less happily it's so prolific that it's regarded as an invasive weed.

Pohutukawa belongs to the Myrtle family (*Myrtaceae*). The tree grows up to 25m high, developing a spreading dome shape. The red bottle-brush flowers comprise a proliferation of stamens (fig. 2). The blooms appear in July and August in the UK, and from November to January down under – hence it's commonly known as 'the New Zealand Christmas tree'. It's also been called 'the Settlers' Christmas tree' and 'antipodean holly'.

### Propagating *Metrosideros excelsa*

My experience of pohutukawa began in the summer of 2006. Shrubby potted specimens of the trees are used to adorn the terrace of the mid-16th-century historic house with a 6½ acre garden where I am head gardener. It's a labour-saving



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Fig. 2 The 'flowers' are stamens.



Figs. 3a & b Six years from cuttings, two plants come into flower.

shrub, requiring little watering throughout the summer months and yet producing an abundance of the flowers in extremely dry conditions.

In the autumn of 2008, as an experiment, I started to propagate pohutukawa. Including the height of the pots, the shrubs stand at a

height of 1.3m; each shrub has a varied growth habit of single and lateral stems. I thought it would be interesting to take cuttings from single and lateral stems to see if the cuttings continued to produce the same pattern of growth.

Twenty cuttings were

taken and five cuttings inserted into each of four 2-litre pots with a 2:1 mix of peat-free compost and grit sand, as I'd seen woody subjects develop good rooting systems in such a mix.

Ten cuttings were taken from the greener, softer parts of the plant stems closer to the shoot tips, and the other ten from riper wood lower down. All were placed in the heated end of the glasshouse, with assisted heat to maintain 10–15° C.

By the following spring just two of the cuttings had rooted, both taken from woodier sections of stems. These two plants are now just over a metre high and in spring 2014, with assisted heat in the propagation unit of the glasshouse, both had a profusion of early flowers (figs 3a & b).



Fig. 4 In a cool greenhouse, roots develop well.



I made a second attempt in November 2011: a larger proportion of the cuttings were taken from woody stem material, and all the cuttings were put in the cool section of the glasshouse to encourage root formation. I'd found this method more successful when propagating *Arbutus* and *Catalpa* trees.

By mid-March 2012, all the cuttings had started to root – a gentle tug confirmed there was resistance in the pots. Removing some of the cuttings from the pots with the compost intact exposed a fine network of roots (fig. 4).

As the plants developed through summer 2012 it was evident that the stronger root systems were formed by woody-stem cuttings. The young plants were potted into 1L pots, and thrived although watering was reduced to that given to the parent plants.

The young plants were placed on capillary matting to see if water uptake from the base would be sufficient for sustained root formation and shoot development. By summer 2013, this method had proven successful with a mixed formation of single- and multi-stemmed lateral growth. The plants were then potted on to 2L pots in peat-free compost. The growth

pattern of each plant has followed that of the parent plant: a single-stemmed cutting has produced a single-stemmed plant, while lateral-stemmed cuttings have not produced a single, dominant stem (figs 5a & b).

To date only one of the new plants has died, and the rest have remained strong, vigorous and healthy. The tallest single-stemmed plant is currently 80cm high. The capillary matting appears to have stimulated root development – the roots of some plants have crept several centimetres through the side drainage holes on to the matting. These plants will be potted on into 3–4 litre pots.

In midsummer 2014, the young plants were placed outside to be watered overhead from a hose sprinkler to encourage new tip-growth on the branches.

### *Metrosideros umbellata*

We also have a small potted shrub, just under a metre tall, of another *Metrosideros* species, *umbellata*, a flowering plant from the cooler south of New Zealand. I'd not been able to induce it to flower until 2013, when my fortunes changed with a concerted effort to keep it well watered during exceptionally



Figs. 5a & b Single-stem and branch-stem cuttings develop like their parent plants.

hot days – very different from *M. excelsa*.

The combination of warmth and moisture brought the shrub into bloom. It was well worth the wait to see the small, bright crimson bottle-brush flowers through July and August. With coppery young leaves, it is one of the hardiest *Metrosideros* species, and it thrives outside in Cornwall.

I can recommend both. 🌱

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