

DUNE RESTORATION TRUST

OF NEW ZEALAND

## **Technical Article No. 12.1**

### INFORMATION SOURCES

Planting of native coastal dune species is likely to be a major component of most sand dune restoration programmes. There is a wealth of information available covering all aspects of planting natives much of which is applicable to restoration of backdunes (see references). Most guidelines focus on planting and enhancing natural regeneration with natives to meet a wide range of environmental purposes.

In their comprehensive publication on Protecting and restoring our natural heritage – a practical guide, Davis and Meurk (2001) give detailed information about the planning and management of restoration projects. Sections cover the full range of important issues relevant to planting natives including viewing restoration of a range of ecosystems within the context of the overall landscape, the importance of developing a management plan, providing key steps to successful restoration, site preparation and supply of plants, planting techniques, and the importance of monitoring and maintenance.

### **PLANTING FAILURES**

Most Coast Care groups have experienced poor survival of planted natives on sand dunes. Many factors contribute to failure of restoration programmes including natural phenomenon such as drought.

A lack of understanding of the importance of zonation and succession leading to poor

# Planting Natives On Sand Dunes - getting started

selection of plant species also contributes to planting failure on dunes (refer to Technical Handbook Article No. 2.4 – *Succession and zonation on coastal sand dunes*). Care is required in identifying key species and vegetation communities within each zone.

Other factors that contribute to loss of planted natives on dunes are the lack of adequate site preparation, regular monitoring, and maintenance including weed and pest animal control.

### TRIAL SMALL AREAS

The cost and commitment of establishing and managing planted areas are easily underestimated sometimes resulting in partial or complete failure. Despite good planning and site preparation, issues such as problem weeds and animal pests may only become apparent after planting.

Keeping our Dunes ALIVE

#### Article No. 12.1 Getting started



An initial small scale planting programme will provide an opportunity to determine optimum species and management requirements. Gaining local experience in early years will give Coast Care groups greater confidence to undertake larger planting programmes in the future including an understanding of the considerable resources required for post-plant care.

#### **BEST PLANTING PRACTICE**

Detailed requirements critical to best planting practice are given in various articles within this Technical Handbook including Section 12 – *Planting practices*. In addition to good planning and an understanding of the ecological considerations of dune restoration such as zonation and succession, best planting practice for restoration of dunes involves:

- Adequate site preparation including protection of the dune planting area from domestic grazing stock and control of animal pests;
- Supply of high quality nursery-raised native plants;
- Use of best-practice planting and management methods; and
- Timely and appropriate monitoring and maintenance, particularly post-plant weed control and ongoing pest control.



Control of vigorous weed growth is essential to ensure survival and growth of natives planted on backdunes.

#### REFERENCES

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"To see the majority of New Zealand dunes restored and sustainably managed using indigenous species by 2050".