Breeding New *Leptospermum* Cultivars

Peter Ollerenshaw
Bywong Nursery, RMB 265 Millynn Rd, Bungendore, NSW 2621

INTRODUCTION

Leptospermum, commonly called tea tree in Australia, belongs to the family Myrtaceae. There are currently 85 recognised species, three of which occur only in South East Asia. One species occurs in both South East Asia and Australia. Another species occurs in southern Australia and over most of New Zealand. The remaining 80 species are endemic to Australia. They are often found on the edges of swamps or rivers, but may also be seen on rocky ridges or sandy sites. *Leptospermum* species are commonly shrubs 2 to 4 m high, however they can also occur as prostrate groundcovers or trees to 18 m high. Most species have ornamental merit and are easily propagated from seeds or cuttings.

Flower colour is generally white, although there are pink forms and a few species that are red or mauve. In our locality flowering begins in Sept. and you can have a continuous succession of species flowering for 5 to 6 months. Leaf shape and colour is quite varied and some species have strongly aromatic foliage.

Despite the large variation in the genus, and the wide range of habitats they occur in, the majority of cultivars have come from just one species, *L. scoparium.* This species is unfortunately susceptible to a number of insect pests such as scale and webbing moth. These pests cause concern amongst home gardeners and have resulted in an unfavourable reputation for tea trees in general. Over the last 9 years I have been working to produce attractive new cultivars in a range of colours and sizes. I have included a number of locally hardy species in an attempt to build in some pest resistance.

AIMS OF THE BREEDING PROGRAM

1) To produce new cultivars in a range of colours.
2) To produce plants that have disease and pest resistance.
3) To produce compact plants that flower in containers.
4) To produce plants suitable for cut flowers.

BREEDING TECHNIQUE

The pollination method for the species used so far is quite simple. Flower buds are emasculated just as they start to expand but before the petals open. Petals and stamens are removed from several flowers on a small branch and covered with clip lock plastic bags. In the morning 3 to 4 days later flowers from the male parent are brought to the emasculated flowers and pollen is dusted on to the stigmas. The flowers are re-covered, tagged and recorded. After approximately 7 days the bags are removed and the seed capsules allowed to mature. This takes between 4 to 6 months. Capsules can then be removed and dried. The seed which is released can be sown immediately or stored for several years.

LEPTOSPERMUM SPECIES AND CULTIVARS SUCCESSFULLY USED IN THE BREEDING PROGRAM.

L. deuense
L. grandifolium
L. lanigerum
L. macrocarpum
L. morrisonii (purple foliage)
L. novae-angliae
L. polygalifolium ssp. *polygalifolium*
L. rotundifolium
L. rotundifolium 'Julie Ann'
L. rupestre
L. scoparium 'Asbestos Range'
L. scoparium 'Big Red'
L. scoparium 'Kare Kare'
L. scoparium 'Nanum Rubrum'
L. scoparium 'Silver Fantasy'
L. scoparium var. *eximium*
L. spectabile

RESULTS

Seedlings from crosses of the above parents have been planted out for assessment. The results so far have been very encouraging. Plants with flowers in red, pink, purple, and mauve shades can be obtained fairly easily. Combinations of height, habit and flowering time are also achievable. Selections of the most promising lines are being made for further trial and possible release to the market.