

Melaleuca alternifolia:

It is a member of the Myrtaceae family in company with Callistemons (Bottlebrushes), Eucalypts and Leptospermums. There are about 220 *Melaleuca* species with 215 native to Australia and the others scattered through New Guinea, Indonesia and South-east Asia.

Melaleuca alternifolia (used by Gelair) is an eastern Australian species and occurs in the north coast and adjacent ranges of New South Wales, Australia. It develops into a tall shrub with papery bark and white flowers. The common name, Snow-in-Summer, refers to the white fluffy flowers that develop in the spring and summer months. *Melaleuca alternifolia* develops into a tall upright shrub and a wide range of native insects visit the flowers.

Melaleuca alternifolia has aromatic foliage and the valuable "tea tree oil" is extracted from the leaves by steam distillation and refining. Tea tree oil has great germicidal properties and is used in a range of products - antiseptics, deodorants, shampoos (for dogs and humans) and soaps being just some of the products incorporating tea tree oil. Large commercial *Melaleuca alternifolia* plantations have been established on the north coast of New South Wales.

Three main chemical varieties (chemotypes) of *M. alternifolia*, rich in either 1,8-cineole, terpinolene or terpinen-4-ol, are recognised. The terpinene-4-ol rich chemotype of low 1,8-cineole content (<5%) has the most antimicrobial components of tea tree oil and is the source of Gelair tea tree oil.