

MELALEUCA

(me-luh-LOO-kuh)

Family: **Myrtaceae**

(mir-TAY-see-ee)



Other members of this family include:

Acca (feijoa)

Allspice

Bay Rum tree

Callistemon (bottle brush)

Clove

Eucalyptus

Guava

Myrtle

Pohutukawa



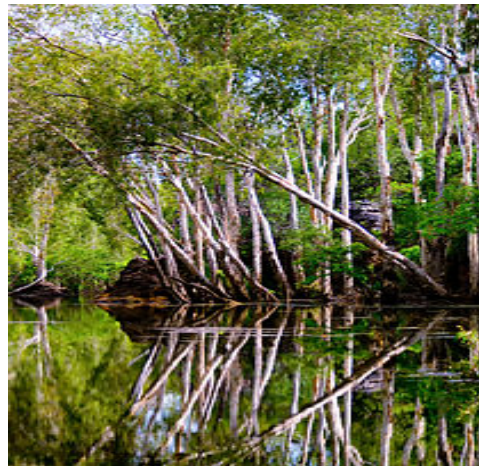
MELALEUCA PLANTS

THE NAME *MELALEUCA* IS DERIVED FROM THE ANCIENT GREEK (*MÉLAS*) MEANING “DARK” OR “BLACK”, AND (*LEUKÓS*) MEANING “WHITE” APPARENTLY BECAUSE ONE OF THE FIRST SPECIMENS DESCRIBED HAD FIRE-BLACKENED WHITE BARK

IT IS A GENUS OF NEARLY 300 SPECIES OF PLANTS

MOST OF THESE PLANTS ARE COMMONLY KNOWN AS PAPERBARKS, HONEY-MYRTLES OR TEA-TREES

IT IS MAINLY ENDEMIC TO AUSTRALIA WITH A FEW VARIETIES EXTENDING AS FAR NORTH AS THAILAND & VIETNAM



MELALEUCA PLANTS

AN IMPORTANT FOOD SOURCES FOR
NATIVE INSECTS,
BIRDS, AND MAMMALS

ALTHOUGH, SOME VARIETIES ARE NOT TASTY TO DEER.



MELALEUCA PLANTS



- **Size:** Shrubs 3' – 6'
Trees 10' – 100'
- **Temperate:** 40' – 90' can stand a few light frosts
- **Rain Fall-** Tolerates seasonal drought & flooding
 - Australia- 35'' – 50'' (most species)
 - Some species- 20'' and a winter max. occurs
 - SD- may need supplemental watering
- **Zone:** Varies by species
 - Sea level – 300' w/some as high as 3000'

- **Soils:**
 - Nutrient-poor sites
 - High organic soils
 - Limestone-derived soils
 - High pH
 - Slightly acidic soils
 - Well-drained slopes
 - Poorly drained soils
 - Low-lying coastal wetlands
 - Sand
 - Sandy loam
 - Sandstone
 - Silty soil
 - Alluvial Clays
 - Basalt ash
 - Lava rock
 - Riparian zones
 - Swamps
 - Grasslands
 - Open forests
 - Coastal dunes



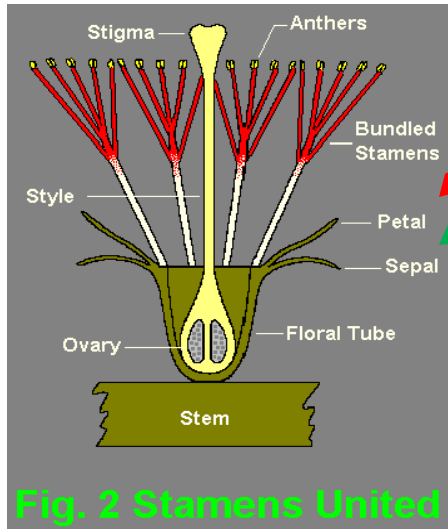
PLANTS



LEAVES – EVERGREEN

MOST HAVE DISTINCT OIL GLANDS DOTTED IN THE LEAVES, MAKING THE LEAVES AROMATIC, ESPECIALLY WHEN CRUSHED

MELALEUCA FLOWERS



- 5 petals (small - none)
- 5 sepals
- Occurring in groups, a “head” or “spike”, containing up to 80 individual flowers



MELALEUCA FLOWERS

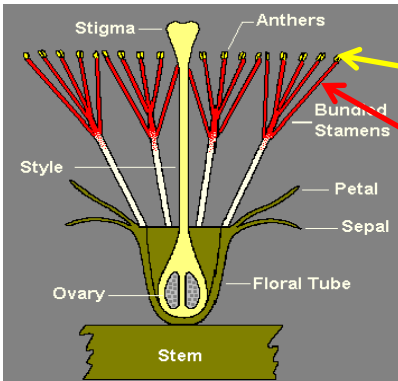


Fig. 2 Stamens United

- Colors from white to cream or yellow, red, or mauve
- Yellow tips (anthers) contrasting with their stocks (filaments)
- Stamens are conspicuous, brightly colored & numerous



MELALEUCA FRUIT/SEEDS



◎ **Fruit:**

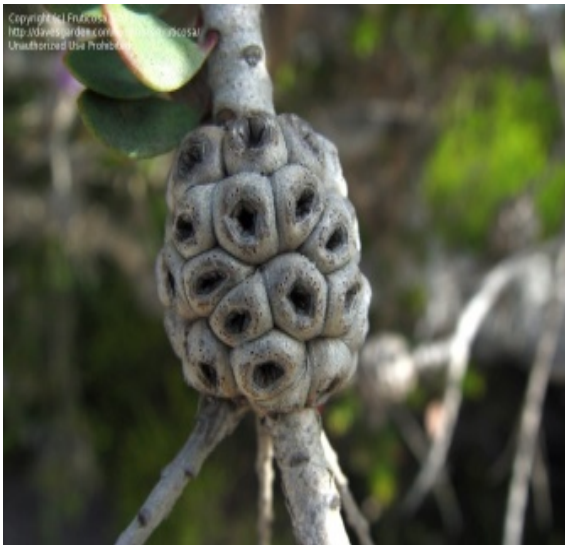
- Woody round capsules
- Clustered along the stems

◎ **Seeds:**

- Can be retained in the fruits for years

◎ **Seeds released:**

- Plant, or part of plant, dies
- Heated by bushfire
- Annually in wet season
- Fruit may only open when the plant, or part of it, dies, is heated in a bushfire, or annually in the wet season.



MELALEUCA HISTORY

Aboriginal people used various species to:

- ◎ Bandages
- ◎ Food preparation
- ◎ Make rafts
- ◎ Roofing for shelter
- ◎ Skin infections
- ◎ Treatment for coughs & colds



PAPERBARK TREES

Melaleuca alternifolia

(al-tern-ee-FOH-lee-uh)

Tea Tree, weeping paperbark, long-leaved paperbark
or white paperbark



- Can grow 70ft. Tall
- Thick, white papery bark
- Weeping thinner branches
- Flowers (cream/tan) anytime of the year
- Propagates from seed easily
- Favorite for parks & roadsides



(Often called Tea Tree (not confused with the Leptospermum, which is also in the Myrtaceae family) due to Captain James Cook, the 18th century explorer, being reported to have used tea tree leaves to brew a spicy tea.)



PAPERBARK TREE: *MELALEUCA ALTERNIFOLIA*

Tea Tree Oil:

- ⦿ is commercially cultivated for tea tree oil
- ⦿ extracted by steam distillation of the leaves and terminal branchlets
- ⦿ **Uses:**
 - an antiseptic
 - for bacterial/fungal/viral infections in skin care products
 - in the perfume industry
 - in soaps
 - In mouthwashes
 - In shampoos



Caution

Tea tree oil is toxic if ingested in large amount.
It may cause skin irritation topically in high concentrations.
(So far no deaths reported)

PAPERBARK TREES

Melaleuca quinquenervia

(kwin-kway-**NER**-vee-uh)

Melaleuca, Broad-leaved Paperbark, Punk Tree, Paperbark Tea Tree



- *Quinquenervia* derived from Latin *quinque* for ‘**five**’ and *nervus* for ‘**veins**’
- Tree can grow to over 40ft. living for over 100 years.
- Average water needs
- Known to tolerate floods & droughts
- Happiest when water is easily obtainable
- Tolerates acidic soil
- Hardy in a range of climates
- Particularly useful for poorly drained sites



PAPERBARK TREES

MELALEUCA *QUINQUENERVIA*



Popular for landscaping

PAPERBARK TREES

MELALEUCA *QUINQUENERVIA*



Bark

white & papery



Blooms repeatedly
Spring - Autumn



- **Propagates** easily from both seeds and cuttings
- May be invasive
- Self-sows freely (especially in soggy areas)

One of the most familiar trees in eastern Australia, growing mainly along streams & swamps.



PAPERBARK TREES

MELALEUCA *QUINQUENERVIA*



Melaleuca island
forming in the Everglades
Copyright 1997 University of Florida



Florida's everglades & wetlands:

- Considered an invasive plant
- On their **Noxious Weed List**
- 50yrs taken over hundreds of thousands of acres of Everglades
- Native plants & animals are endangered of being eliminated
- “Rivers of Grass” becoming “Rivers of Trees”

In the early 90's, laws restricting the sale, cultivation & transportation were enacted

Biological control insects have been released, yet it will still be some time before results will be known

PAPERBARK TREES

Melaleuca *linarifolia* (*lin-are-ee-FOH-lee-uh*)

Flaxleaf Paperbark, Snow-in-Summer, Narrow-leaved paperbark, Cajeput Tree



- 20-30 ft.
- White/creamy-white flowers Oct-Feb
- One of the trees on the Master Tree List for the **City of Stockton**
- Compact growth habit makes it suitable for small tree wells, narrow strips small yards, under powerlines (with approval)

HONEY-MYRTLE SHRUBS

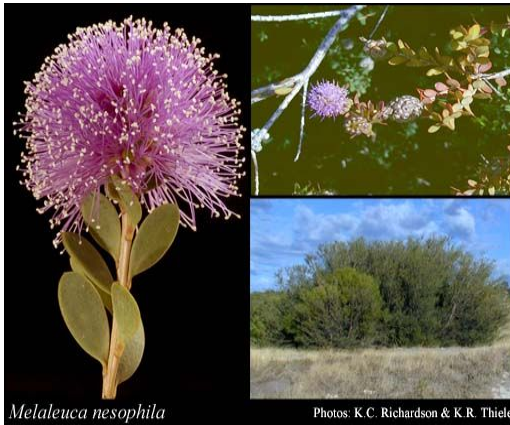
Melaleuca nesophila

(nee-soh-FY-luh)

showy honey-myrtle, mindiyed or pink melaleuca

- ⦿ prolific “pom-pom” heads of pink or purple flowers in late spring and summer (year round in SD)
- ⦿ Grows 2-20 ft. high by 20-30 ft. wide
- ⦿ Full sun to partial shade
- ⦿ Drought tolerant once established
- ⦿ Hardy, adaptable & very trainable
- ⦿ Dense crown of foliage
- ⦿ Sandy or clay loam soils
- ⦿ Most commonly cultivated for gardens

This species is naturalized in some parts of Victoria Australia, where it is considered a serious environmental weed because it replaces the indigenous vegetation.



HONEY-MYRTLE SHRUBS

Melaleuca citrina

common red, crimson or lemon bottlebrush



- ⊙ It is widely cultivated often as **Callistemon citrinus** or **Callistemon lanceolatus**.
- ⊙ Flowers most of the year in an ideal situation
- ⊙ Easily propagated from seed or cutting and grows in most soils
- ⊙ Prefers a sunny location
- ⊙ Frost hardy and drought tolerant
- ⊙ Responds well to watering and the application of fertilizer (*most Australian plants do not like phosphates*)

One of the first Australian plants to be grown outside the country, having been taken to England in 1770 by Joseph Banks

OTHER FUN VARIETIES

Melaleuca uncinata

Broomwood, broom honey myrtle, brushwood



- It is harvested from the wild, and grown in plantations, for broombush fencing



- The only known host of the rare and threatened ***Rhizanthella gardneri***, the 'underground orchid'

OTHER FUN VARIETIES

Melaleuca thymifolia (ty-mih-FOH-lee-uh)

Thyme leaved honey-myrtle, Feather Honey Myrtle



- ⦿ Flowers (fragrant) Mid Spring - Mid Summer
- ⦿ Frost and drought hardy (prefers well watered situations)
- ⦿ 2-4 ft. high, 2-3ft wide
- ⦿ Full sun to partial shade



May be the most commonly cultivated of its genus because of its attractive flowers, graceful form and adaptability to a wide range of soils and conditions.

A number of cultivars have been developed including Melaleuca thymifolia 'Pink Lace and Melaleuca thymifolia 'White Lace

OTHER FUN VARIETIES

Melaleuca pulchella

(claw flower, claw honey-myrtle)



- It is one of only two *Melaleuca* species to have two kinds of stamens
- The outer stamens are longer and curved, giving the appearance of a claw to the flower
- **Small spreading shrub** only growing up to 3-7ft. high
- Has a **long flowering period** and attractive flowers make it a popular plant for gardens
- It prefers fair drainage and extra water but is **adaptable** to most garden situations
- Unlike many Australian native plants, it is **relatively tolerant of phosphates** to some degree in cultivation



OTHER FUN VARIETIES



Melaleuca suberosa

corky-bark honey-myrtle, or corky honeymyrtle

A shrub growing up to 3ft high



OTHER FUN VARIETIES

Melaleuca *wilsonii*

Wilson's honey-myrtle or violet honey-myrtle



- ⦿ Adaptable to a wide range of soils
- ⦿ Frost hardy and A dense shrub
- ⦿ 7 ft high to 10 ft wide
- ⦿ Rough, flaky or corky bark
- ⦿ Often cultivated

THE END



Thank you!