

## Weeds of Natural Areas:

# MELALEUCA

(*Melaleuca quinquenervia* Cav.) Blake

### INTRODUCTION

The Australian tree *Melaleuca quinquenervia* is an aggressive and highly invasive plant in some areas of the world. *Melaleuca* invades areas with a tropical to subtropical climate, seasonal changes in hydrology and frequent fires or other disturbances. *Melaleuca* infestations degrade ecosystem structure and function and reduce native species diversity. Spreading populations of this tree have been documented in environmentally sensitive wetlands in Puerto Rico, the Bahamas, Hawaii and southern Florida (USA). Large-scale *Melaleuca* invasions may be averted through increased awareness, monitoring and control.

### HOW TO RECOGNIZE MELALEUCA

- Form: Evergreen tree that reaches heights of 100 feet
- Bark: Layered and peeling, paper-like whitish-brown bark
- Flowers: Creamy white spiked “bottle brush” flowers
- Seeds: Woody capsules containing up to 300 tiny brown seeds
- Leaves: Lance-shaped grayish-green leaves that smell of camphor when crushed

### DISTRIBUTION

Currently naturalized in North America (Florida, Hawaii, California and Texas), Barbuda, Barbados, Grenada, Guadeloupe, Martinique, Montserrat, Netherlands Antilles, Saint Kitts and Nevis, Saint Lucia, Saint Vincent, the Grenadines, Trinidad, Tobago, the U.S. Virgin Islands, Cuba, Jamaica, Puerto Rico, West Indies (Bahamas), Dominican Republic, and Haiti.

### INVASIVENESS

*Melaleuca* trees grow very rapidly, typically up to 3-6 feet per year, producing dense stands that displace native plants and animals. In the Florida Everglades, *melaleuca* has converted large areas of sawgrass marshes into forests and has altered historical water flow patterns through soil accretion. *Melaleuca* prefers seasonally wet habitats, such as swamps, marshes, and wet prairies, but also thrives in standing water and well-drained uplands, such as pine flatwoods. Young *melaleuca* trees may be killed by fire, but older trees are well-adapted to fire. *Melaleuca* trees develop flowers and fruit year-round, producing millions of wind-dispersed seeds per tree per year. When trees are stressed, they may release their canopy held seeds all-at-once. *Melaleuca* also harbors an exotic rust (*Puccinia psidii*) that threatens native Hawaiian Ohia forests.





## MANAGEMENT

- Cut large trees with a chain saw. Small trees may be felled with a machete. Leave a level cut surface and treat cut stumps immediately with 20% to 40% imazapyr according to label directions.
- If trees will remain standing, girdle and apply 20% to 50% imazapyr or a mixture of 25% imazapyr and 25% glyphosate according to frill and girdle directions on herbicide label.
- Monitor for resprouting and retreat as necessary. Retreatment is most effective when seedlings are controlled before they flower.
- Hand-pull seedlings and saplings, taking care not to leave any part of the root in the ground.
- trees, seedlings and felled trunks may take root and sprout into new trees if left lying on moist soil. Suspend them up on surrounding vegetation or other objects if possible.
- Anyone who applies herbicides in natural areas should receive training in herbicide application technology.

## WHAT YOU CAN DO

Learn to identify melaleuca and monitor wetlands and other natural areas in your country for this species. Remove melaleuca trees from natural areas and help prevent reinvasion by educating your neighbors of the threat. If neighboring property bordering a natural area harbors melaleuca, encourage replacement with native plants in landscaping. Finally, inform your co-workers about the dangers of invasive, non-native plants. Please report suspected occurrences (outside Florida, USA) to the Florida Exotic Pest Plant Council (Florida EPPC) at [www.fleppc.org](http://www.fleppc.org). A reporting form called "Melaleuca Reporting Form" is provided on this website.

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