**Plumeria alba**  
**White Frangipani**¹

Edward F. Gilman and Dennis G. Watson²

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**INTRODUCTION**

Frangipani is well-known for its intensely fragrant, lovely, spiral-shaped blooms which appear at branch tips June through November (Fig. 1). The tree itself is rather unusual in appearance; the 20-inch-long, coarse, deciduous leaves clustered only at the tips of the rough, blunt, sausage-like, thick, grey-green branches. Branches are upright and rather crowded on the trunk forming a vase or umbrella shape with age. They are rather soft and brittle and can break but are usually sturdy unless they are mechanically hit or disturbed. A milky sap is exuded from the branches when they are bruised or punctured.

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**GENERAL INFORMATION**

- **Scientific name:** *Plumeria alba*  
- **Pronunciation:** ploo-MEER-ee-uh AL-buh  
- **Common name(s):** White Frangipani  
- **Family:** Apocynaceae  
- **USDA hardiness zones:** 10B through 11 (Fig. 2)  
- **Origin:** not native to North America  
- **Uses:** container or above-ground planter; large parking lot islands (> 200 square feet in size); wide tree lawns (> 6 feet wide); medium-sized parking lot islands (100-200 square feet in size); medium-sized tree lawns (4-6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; near a deck or patio; small parking lot islands (< 100 square feet in size); narrow tree lawns (3-4 feet wide); specimen; sidewalk cutout (tree pit); residential street tree; no proven urban tolerance  
- **Availability:** generally available in many areas within its hardiness range

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**DESCRIPTION**

- **Height:** 20 to 25 feet  
- **Spread:** 20 to 25 feet  
- **Crown uniformity:** symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms  
- **Crown shape:** round; vase shape  
- **Crown density:** open  
- **Growth rate:** slow  
- **Texture:** coarse

**Foliage**

- **Leaf arrangement:** alternate (Fig. 3)  
- **Leaf type:** simple  
- **Leaf margin:** entire  
- **Leaf shape:** elliptic (oval); obovate

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Leaf venation: banchidodrome; pinnate
Leaf type and persistence: deciduous
Leaf blade length: 12 to 18 inches; 8 to 12 inches
Leaf color: green
Fall color: red
Fall characteristic: not showy

Flower
Flower color: white
Flower characteristics: fall flowering; pleasant fragrance; spring flowering; summer flowering; very showy

Fruit
Fruit shape: elongated
Fruit length: 6 to 12 inches
Fruit covering: dry or hard
Fruit color: brown
Fruit characteristics: does not attract wildlife; inconspicuous and not showy; no significant litter problem; persistent on the tree

Trunk and Branches
Trunk/bark/branches: bark is thin and easily damaged from mechanical impact; droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; routinely grown with, or trainable to be grown with, multiple trunks; not particularly showy; tree wants to grow with several trunks but can be trained to grow with a single trunk; no thorns
Pruning requirement: requires pruning to develop strong structure
Breakage: susceptible to breakage either at the crotch due to poor collar formation, or the wood itself is weak and tends to break
Current year twig color: brown; green
Current year twig thickness: stout

Culture
Light requirement: tree grows in part shade/part sun; tree grows in full sun
Soil tolerances: clay; loam; sand; acidic; alkaline; well-drained
Drought tolerance: high
Aerosol salt tolerance: moderate
Other

**Roots:** surface roots are usually not a problem  
**Winter interest:** tree has winter interest due to unusual form, nice persistent fruits, showy winter trunk, or winter flowers  
**Outstanding tree:** tree has outstanding ornamental features and could be planted more  
**Invasive potential:** little, if any, potential at this time  
**Pest resistance:** long-term health usually not affected by pests

**USE AND MANAGEMENT**

Frangipani is very susceptible to freezing temperatures and should be adequately protected or planted only in areas which do not freeze in the winter. Plants will grow quickly in full sun on a variety of well-drained soils and are fairly drought- and salt-tolerant. Reaching a height of 20 to 25 feet with an equal spread, Frangipani works well as a freestanding specimen, a patio tree, or as part of a shrubbery border. It displays well in a front yard as an attention-grabber by the entrance. It can be grown with a single trunk or branched low to the ground into a multi-trunked specimen. Single-trunk specimens could be planted as median or street trees on 15 to 20-foot-centers.

*Plumeria alba* has white flowers with yellow centers while *Plumeria rubra* produces red-toned flowers. *Plumeria obtusa* has white blooms centered in yellow and is variable in form and color. There are many other selections of Frangipani which display a variety of flower colors. They are widely grown in Hawaii where they are used in flower arrangements and in leis.

Propagation is by cuttings. Large hardwood cuttings should be allowed to dry several days while leafy tip cuttings should be planted immediately. The plants flower at an early age.

**Pests**

Some common pests of this tree are scales, frangipani caterpillar, and nematodes.

**Diseases**

No diseases are of major concern. Root rot can infect plants planted in soils with poor drainage. Rust disease occasionally infects foliage.