



Plumeria alba White Frangipani¹

Edward F. Gilman and Dennis G. Watson²

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.

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

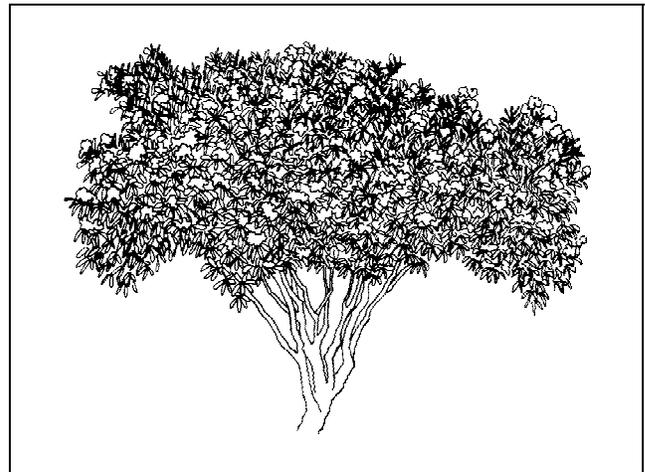


Figure 1. Middle-aged White Frangipani.

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

1. This document is adapted from Fact Sheet ST-490, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.
2. Edward F. Gilman, associate professor, Environmental Horticulture Department; Dennis G. Watson, associate professor, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.



Figure 2. Shaded area represents potential planting range.

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

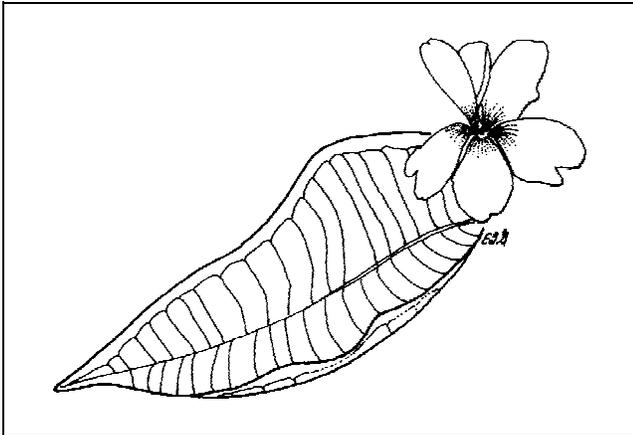


Figure 3. Foliage of White Frangipani.

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 shrubby 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.