

# *Pandanus utilis*: Screw-Pine<sup>1</sup>

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## Introduction

Creating a striking landscape effect wherever it is used, screw-pine has a pyramidal, sometimes irregular, open, but much-branched silhouette. The smooth, stout trunk is topped with full, graceful heads of long, thin leaves, three feet long and three inches wide, emerging spirally from stubby branches. It is not a true pine tree. The blue-green foliage color adds to the striking nature of this exotic tree. The leaves are edged with small red spines and are used to make mats and baskets in the tropics. Branches have prominent leaf scars which encircle the stems. Large brace-roots emerge from the trunk several feet above the ground, helping to support the plant. Screw-pine is capable of reaching 60 feet in height but is not usually seen over 30 feet in USDA hardiness zone 10 and 11, with a spread of 20 feet. Growth rate is slow to moderate, depending upon fertilization and watering schedules, and screw-pine is very popular for use as a specimen or container planting.

## General Information

**Scientific name:** *Pandanus utilis*

**Pronunciation:** pan-DAY-nus YOO-tih-liss

**Common name(s):** screw-pine

**Family:** *Pandanaceae*

**USDA hardiness zones:** 10B through 11 (Figure 2)

**Origin:** native to Madagascar

**UF/IFAS Invasive Assessment Status:** not assessed/  
incomplete assessment

**Uses:** reclamation; deck or patio; specimen; container or planter; street without sidewalk; highway median



Figure 1. Full Form - *Pandanus utilis*: screw-pine  
Credits: UF/IFAS

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## Description

**Height:** 20 to 30 feet  
**Spread:** 12 to 20 feet  
**Crown uniformity:** irregular  
**Crown shape:** pyramidal  
**Crown density:** open  
**Growth rate:** moderate  
**Texture:** coarse



Figure 2. Range

## Foliage

**Leaf arrangement:** whorled  
**Leaf type:** simple  
**Leaf margin:** spiny, pectinate  
**Leaf shape:** linear  
**Leaf venation:** parallel  
**Leaf type and persistence:** evergreen



Figure 3. Leaf - *Pandanus utilis*: screw-pine  
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**Leaf blade length:** 1 ½ to 3 feet  
**Leaf color:** blue green  
**Fall color:** no color change  
**Fall characteristic:** not showy

## Flower

**Flower color:** white  
**Flower characteristics:** not showy; emerges in clusters on long spikes and only occurs on male specimens  
**Flowering:** winter



Figure 4. Flower - *Pandanus utilis*: screw-pine  
Credits: UF/IFAS

## Fruit

**Fruit shape:** oval or globose  
**Fruit length:** 8 to 9 inches  
**Fruit covering:** dry or hard  
**Fruit color:** orange to yellow when ripe  
**Fruit characteristics:** attracts squirrels/mammals; showy; fruit/leaves a litter problem; head contains 100-200 tightly compressed drupes

## Trunk and Branches

**Trunk/branches:** branches don't droop; showy; typically one trunk; no thorns  
**Bark:** brown, smooth, and has small ridges of old leaf scars encircling the trunk  
**Pruning requirement:** little required  
**Breakage:** resistant  
**Current year twig color:** brown  
**Current year twig thickness:** very thick  
**Wood specific gravity:** unknown





Figure 5. Fruit - *Pandanus utilis*: screw-pine  
Credits: UF/IFAS



Figure 6. Bark - *Pandanus utilis*: screw-pine  
Credits: Gitta Hasing, UF/IFAS

## Culture

**Light requirement:** full sun to partial shade  
**Soil tolerances:** clay; sand; loam; alkaline; acidic; wet to well-drained  
**Drought tolerance:** moderate  
**Aerosol salt tolerance:** high

## Other

**Roots:** not a problem  
**Winter interest:** no  
**Outstanding tree:** no  
**Ozone sensitivity:** unknown  
**Verticillium wilt susceptibility:** unknown  
**Pest resistance:** free of serious pests and diseases

## Use and Management

Although the male plants possess conspicuous, fragrant flowers, it is the female plant which is preferred for landscape use because of the large, eight to nine-inch, globular fruits which hang from “cords”. The fruits are made up of 100 to 200 tightly compressed drupes, similar to those of a pineapple, and change from green to yellow when ripe. There is only a small amount of edible pulp but the fruits are quite showy.

Screw-Pine produces fruit when grown in full sun but young plants may be kept in the shade. Soil should be well-drained and plants kept well-watered. Screw-Pine may be considered messy due to the constant leaf-drop throughout the year.

Veitch Screw-Pine or Ribbon-Plant (*Pandanus veitchii*) has white-banded, spiny leaves, does not fruit, and is often used as a pot plant. Sander Screw-Pine (*Pandanus sanderi*) has denser, more tufted foliage with golden yellow bands from center of leaf to margin.

Propagation is by seed (soaked 24-hours before planting), basal sucker division, or large cuttings.

## Pests and Diseases

No pests or diseases are of major concern but occasionally scales.

## References

Koeser, A. K., Hasing, G., Friedman, M. H., and Irving, R. B. 2015. Trees: North & Central Florida. University of Florida Institute of Food and Agricultural Sciences.

Koeser, A.K., Friedman, M.H., Hasing, G., Finley, H., Schelb, J. 2017. Trees: South Florida and the Keys. University of Florida Institute of Food and Agricultural Sciences.