

# Descriptions of major dune plants

## Screw pine (*Pandanus tectorius*)

### Description

Screw pine is a small spreading evergreen tree up to 6m high with stout prop roots which firmly anchor the tree in loose sand. A prop root is a root formed from the stem, usually close to the ground, which helps hold the stem erect and anchor the plant.

The large, light green leaves are spirally arranged on the stems. They are usually 90–150cm long and 5–7cm wide, with small white upturned spines along the leaf edges. When the leaves fall from the tree they leave prominent leaf scars on the stout stems.

The fruiting heads, resembling a pineapple, are up to 25cm across and consist of many woody segments.

The heavy heads hang from very stout branches and can remain on the tree for over 12 months.

### Distribution

*Pandanus* is a large and complex genus found worldwide on tropical and subtropical coasts but also extending into inland areas of the moist tropics. This genus is represented along the entire Queensland coastline.

Screw pine grows well on the exposed seaward slopes and crests of frontal dunes from the New South Wales border north to Townsville. Other species of *pandanus* are more common on the frontal beach ridges along the coastline of northern Queensland.



## Function

Screw pine is sand and salt tolerant and can withstand exposure to strong winds. When growing on the seaward slope and crest of the frontal dune it helps bind the sand and prevent wind erosion. When established at close spacing on the crest of the frontal dune it functions as a windbreak, protecting less tolerant hind dune plants from the damaging effects of salt-laden winds. Screw pine is a secondary sand-colonising plant and is a useful species for planting on exposed frontal dunes that have been stabilised against wind erosion.

## Propagation

The tree can be propagated from seed or, more rarely, by cuttings.

The woody segments of the fruit head are essentially seed pods that take up to one year to ripen. These pods can produce 4–6 plants each and can be planted directly into moist sand on the dune crest in early summer. Seedlings can be raised in the nursery and planted out on the dune when 30–45cm high.

When young prop roots develop on upper stems the entire growth can be cut off the tree and used to vegetatively propagate a new plant. Rooted cuttings should be planted in moist sand and staked.



Screw pine growing on the crest of the frontal dune.