

*D'Asign Source*

# Coastal Hurricane Tolerant Plants



# Tolerances

- **Wind Tolerance-** How durable is a plant to high winds. Scale:0-5
  - 0 Cannot handle any wind without leaf damage.
  - 1 Withstands moderate wind with minor damage.
  - 2 Withstands moderate winds with no damage.  
moderate winds are winds form 40-75 mph.
  - 3 Withstands high winds with minor damage.
  - 4 Withstands high winds with moderate damage.
  - 5 Withstands high winds with very little damage.  
High winds are winds over 75 mph
- 5 being extremely high, 0 being very low

# Tolerances

- **Salt Tolerance**- How durable is plant to salt spray and immersion. Scale:0-5
- 0 Cannot endure salt air.
- 1 Cannot endure salt spray.
- 2 Endures salt spray with minor damage.
- 3 Endures salt spray with no damage.
- 4 Endures salt emersion with minor damage.
- 5 Endures salt emersion with no damage.

➤ 5 being extremely high, 0 being very low

# Tolerances

- **Coastal Hurricane Tolerance-**  
combination of wind and salt tolerances.

Scale:0-10



# Brahea armata

## Blue Hesper Palm

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Chamaerops humilis

## European Fan Palm

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Cocos nucifera

## Coconut Palm

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Copernicia ekmanii

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10





# Dictyosperma album

## Hurricane Palm

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Latania loddigesii

## Blue Latan Palm

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Phoenix dactylifera

## True Date Palm

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Pseudophoenix ekmanii

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Pseudophoenix sargentii

## Buccaneer Palm

- Native
- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Pseudophoenix sargentii navasona

## Buccaneer Palm

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Allagoptera arenaria

## Seashore Palm

- Wind Tol: 5
- Salt Tol: 4
- Hurricane Tol: 9



# Coccothrinax argentata

## Silver Thatch Palm

- Native
- Wind Tol: 5
- Salt Tol: 4
- Hurricane Tol: 9





# Guihaia argyrata

## Copperstar

- Wind Tol: 5
- Salt Tol: 4
- Hurricane Tol: 9



# Hyphaene sp. Gingerbread Palm

- Wind Tol: 5
- Salt Tol: 4
- Hurricane Tol: 9



# Pritchardia thurstonii

## Thurston's Palm

- Wind Tol: 4
- Salt Tol: 5
- Hurricane Tol: 9



# Pseudophoenix vinifera

## Wine Palm

- Wind Tol: 5
- Salt Tol: 4
- Hurricane Tol: 9



# Sabal palmetto

## Cabbage Palm

- Wind Tol: 5
- Salt Tol: 3
- Hurricane Tol: 8



# Serenoa repens

## Saw Palmetto

- Wind Tol: 5
- Salt Tol: 4
- Hurricane Tol: 9



# Leucothrinax morrisii

Keys Thatch Palm

- Native
- Wind Tol: 5
- Salt Tol: 4
- Hurricane Tol: 9



# Thrinax radiata

## Florida Thatch Palm

- Native
- Wind Tol: 5
- Salt Tol: 4
- Hurricane Tol: 9





# Coccothrinax crinita

## Old Man Palm

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Copernicia baileyana

## Bailey's Palm

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Copernicia hospita

## Wax Palm

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Copernicia macroglossa

## Cuban Petticoat Palm

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Hyophorbe lagenicualis

## Bottle Palm

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Hyophorbe verschaffeltii

## Spindle Palm

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Veitchia joannis

## Sunshine Palm

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Sabal mauritiiformis

- Wind Tol: 3
- Salt Tol: 4
- Hurricane Tol: 7





# Dioon

- Wind Tol: 4
- Salt Tol: 5
- Hurricane Tol: 9



# Encephalartos

- Wind Tol: 4
- Salt Tol: 5
- Hurricane Tol: 9



# Pandanus utilis

## Screwpine

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Conocarpus erectus var. sericeus

## Silver Button Wood

- Native
- Wind Tol: 4
- Salt Tol: 5
- Hurricane Tol: 9



# Bursera simaruba

## Gumbo Limbo

- Wind Tol: 3
- Salt Tol: 5
- Hurricane Tol: 8



# Clusia rosea

Autograph Tree

- Wind Tol: 3
- Salt Tol: 5
- Hurricane Tol: 8



# Ficus benghalensis

## True Banyan

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Guaiacum sanctum

## Lignum Vitae



- Native
- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Simarouba glauca

## Paradise Tree

- Wind Tol: 3
- Salt Tol: 4
- Hurricane Tol: 7



# Agaves

## Century Plants

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Nolina recurvata

## Ponytail

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Yuccas

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Crinum asiaticum

## Crinum Lily

- Wind Tol: 4
- Salt Tol: 5
- Hurricane Tol: 9



# Aloes

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Philodendron giganteum

## Giant Philodendron

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8



# Strelitzia reginae

## Orange Bird of Paradise

- Wind Tol: 4
- Salt Tol: 4
- Hurricane Tol: 8





# Suriana maritima

## Bay Cedar

- Wind Tol: 3
- Salt Tol: 5
- Hurricane Tol: 8



# Liriope muscari

## Liriope

- Wind Tol: 5
- Salt Tol: 5
- Hurricane Tol: 10



# Hymenocallis latifolia

## Spider Lily

- Wind Tol: 5
- Salt Tol: 4
- Hurricane Tol: 9



# Top 10 Coastal Hurricane Tolerance Tips

- **Drought Tolerance:** There is a direct correlation of drought tolerance to salt tolerance. Typically the more drought tolerant the plant species the more salt tolerant it will be.
- **Silver:** Plants with silver or blue waxy coatings typically endure salt spray very well.
- **Maturity:** Size is important. Typically small plants of even highly tolerant plant species are not as durable as mature specimens. Except that extreme height is not an advantage
- **Containerized:** Pot grown plants establish quicker than field grown and dug plants, typically resulting in a more durable plant in a shorter period of time.
- **Health:** Plants in good condition handle all threats, much better than weaker plants.

- **Irrigation:** After heavy amounts of salt spray and/or inundation, quick and thorough irrigation/watering is strongly recommended.
- **Buffers:** Planting buffers of wind tolerant plant species around more delicate plants will help protect them from wind damage. Plants in groups typically survive better than solitary plantings.
- **Berming:** Increasing the height of the planting bed above the surrounding grade, will typically decrease the amount of salt reaching the roots minimizing salt damage.
- **Natives:** Plants that are native to the Keys and other Caribbean coastal areas, typically endure wind and salt better than inland species.
- **Balance:** Landscapes should be designed with durability and longevity in mind, but there are many beautiful plants that still deserve to be included in your garden even if they are not completely hurricane tolerant. Many shrubs and colorful plants are inexpensive and should be considered disposable, but well worth the effort and cost in between hurricanes.

# Native Plants Coastal Hurricane Tolerance

## ➤ Most Tolerant

- 1. Buccaneer Palm: *Psuedophoenix sargentii*
- 2. Thatch Palms: *Thrinax morrissii*, *radiata* & *Coccothrinax argentata*.
- 3. Jamaican caper: *Capparis cynophallophora*
- 4. Silver Buttonwood: *Conocarpus erectus* var *sericeus*
- 5. Lignum Vitea: *Guaiacum sanctum*

# Native Plants Coastal Hurricane Tolerance

## ➤ Least Tolerant

- 1. Coco-plum: *Chrysobalanus icaco*
- 2. Firebush: *Hamelia patens*
- 3. Satin Leaf: *Chrysophyllum oliviforme*
- 4. Paurotis palm: *Acoelorrhaphe wrightii*