

Salt Tolerant Landscapes

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Whether you live close to the beach, are dealing with saltwater intrusion in your well, or even have elevated levels of salt in your reclaimed water, knowing which plants can tolerate these harsh conditions can help you to have a thriving, low-maintenance landscape. Coastal plant communities are characterized by salty, dry, sandy, and shelly conditions so it makes sense to look at the plant communities that naturally grow in these areas to create an appropriate plant pallet for your coastal garden.

The three main dry, coastal plant communities include beach dune, coastal strand and maritime forest.

- Beach dunes are formed by wind and wave action which creates the foredune and upper beach. Dunes are populated with pioneer plant species such as dune sunflower, beach morning glory, sea oats and railroad vine.
- Coastal strands are the bands between the dunes and the maritime forest and are characterized by an evergreen shrub community. This recognizable canopy is often smooth due to pruning by salt spray. The windward side is populated by sea oats, grasses, sedges and low scrubby plants; while the lee side has scrubby trees and shrubs such as sand live oak, saw palmetto, yaupon holly, cabbage palm and necklace pod.
- Maritime forests are hardwood forests that start at the inland side of the coastal strand. They still receive salt spray, but not as much as the dunes and strand, making the plants slightly less salt tolerant than those closer to the water. Examples of plants include coralbean, American holly, southern red cedar, Southern magnolia, beautyberry, coontie, and wild coffee.

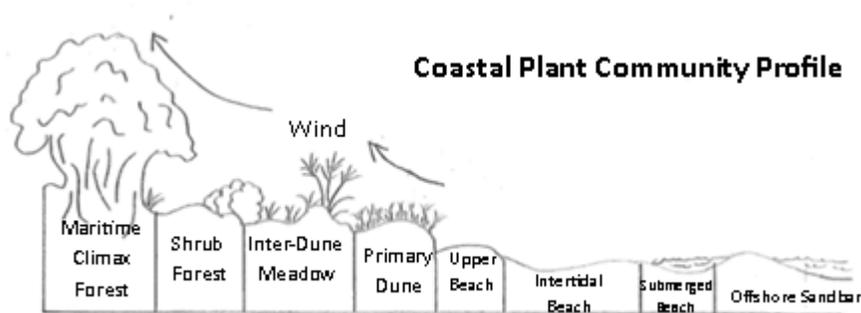


Illustration by Terra Freeman

If your house was built in one of these natural communities, you could benefit from learning which plants would naturally grow there and replicating them in your landscape. When acquiring native plants, it is important to purchase from a reputable nursery rather than dig them up from natural areas as we need to preserve, not take away from, natural areas. For more information on coastal gardening visit: <http://gardeningsolutions.ifas.ufl.edu/design/landscaping-for-specific-sites/coastal-landscape.html>

How does salt affect your garden?

Winds carry salt spray inland, leaving salt deposits on plants. Plant damage may also result from driving rains and frequently heavy surf. Salt causes water to move out of the plants in a process called exosmosis. Salt damage often results in marginal burning and loss of leaves in non-salt-tolerant plants, especially on young leaves. It can dehydrate and eventually kill the plant.

Salt tolerance relates to plants resistance and ability to grow under conditions of salt spray; high winds; alkaline, infertile, sandy soils; and occasional storm-induced saltwater inundation. The tolerance of a given plant to salt may be affected if any of the four conditions become extreme.

Defining Salt Tolerance

- * **Highly Salt Tolerant** plants are highly resistant to salt drift and can be used in exposed environments.
- * **Moderately Salt Tolerant** plants tolerate some salt spray but grow best when protected by buildings, fences, or plantings of more salt-tolerant species.
- * **Slightly Salt Tolerant** plants have poor tolerance and should be protected by buildings, fences, or plantings of more salt-tolerant species.

Salt Tolerant Plant; Level of Salt Tolerance

Trees

American Holly, *Ilex opaca*; Moderately salt tolerant
Persimmon, *Diospyros virginiana*; Moderately salt tolerant
Red Cedar, *Juniperus virginiana*; Highly salt tolerant
Southern Magnolia, *Magnolia grandiflora*; Moderately salt tolerant
Hackberry, *Celtis laevigata*; Moderately salt tolerant

Shrubs

Adam's needle, *Yucca filamentosa*; Highly salt tolerant
Beautyberry, *Callicarpa americana*; Moderately salt tolerant
Christmasberry, *Lycium carolinianum*; Highly salt tolerant
Coontie, *Zamia pumila*; Moderately salt tolerant
Coralbean, *Erythrina herbacea*; Highly salt tolerant
Firebush, *Hamelia patens*; Moderately salt tolerant
Simpson's Stopper, *Myrcianthes fragrans*; Moderately salt tolerant
Wild coffee, *Psychotria nervosa*; Moderately salt tolerant

Vines

Corksystem passionflower – *Passiflora suberosa*; Moderately salt tolerant

Passionflower – *Passiflora incarnata*; Moderately salt tolerant

Railroad vine – *Ipomea pes-caprae*; Highly salt tolerant

Wildflowers

Beach Verbena, *Glandularia maritima*; Moderately salt tolerant

Blanketflower, *Gaillardia pulchella*; Highly salt tolerant

Dayflower, *Commelina erecta*; Highly salt tolerant

Dune Sunflower, *Helianthus debilis*; Highly salt tolerant

Partridge Pea, *Chamaecrista fasciculata*; Moderately salt tolerant

Pricklypear, *Opuntia stricta*; Highly salt tolerant

Seaside Goldenrod, *Solidago sempervirens*; Moderately salt tolerant

Spotted Beebalm, *Monarda punctata*; Moderately salt tolerant

Scarlett Sage, *Salvia coccinea*; Moderately salt tolerant

Grasses

Dwarf Fakahatcheegrass, *Tripsacum floridanum*; Moderately salt tolerant

Saltmeadow Cordgrass, *Spartina patens*; Highly salt tolerant

Sand Cordgrass, *Spartina bakeri*; Highly salt tolerant

Pink Muhlygrass, *Muhlenbergia capillaris*; Moderately salt tolerant

Seaoats, *Uniola paniculata*; Highly salt tolerant

References:

Salt Tolerant Plants for Florida: http://old-hos.ifas.ufl.edu/sites/default/files/faculty/gdliu/Salt-TolerantPlants_FL_Black_03_0.pdf

Wunderlin, R. and Kish, G. (2013). *Native Florida Plants for Drought-and Salt-Tolerant Landscaping*: Pineapple Press.

Florida Native Plant Society: <https://www.fnps.org/>

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