

## Highly Salt-Tolerant Plants for Landscaping

Large quantities of salt in the soil and/or irrigation water aren't the correct ingredients for most plants. An excess of salt prevents them from absorbing water properly. A salty spray carried on the winds only exacerbates the problem. Salt tolerance of a plant relates to resistance and ability to grow under conditions of (1) high winds, (2) salt spray, (3) alkaline soils, and (4) infertile, sandy soils. The tolerance of a given plant to salt may be affected if any of the four conditions become extreme. Typically these plants are also drought tolerant and frost tender.

Burnt Store Marina straddles USDA zones 9b/10a. Because winter conditions sometimes produce frost, even freezing on rare occasions, true tropical plants can be harmed. It is routine to see defoliation and brown spot (fungus) in the winter time.

### **What to do:**

1. Select plants rated as having *high salt-tolerance*; you may need to order some species as they are not typically grown for the mass market.
2. Plant during the rainy season.
3. Position plants a bit high so that excess water can drain off.
4. When irrigation water has high salts, use irrigation bubblers or misters that avoid hitting the foliage. (BSM's community irrigation water is always high in salts. Depending on the season, it will range from 2750 to greater than 5000 ppm of Total Dissolved Solids. Soundings pond: 1500-1600 ppm. Private well: 790-900 ppm. According to the University of Florida any reading over 2100 ppm is "unsuitable for irrigation purposes." Water tests performed 2/16/06 and 10/23/06.)
5. If your property borders water, the temperature will be moderated.
6. Drought tolerant plants will generally be OK if water quickly drains away. Be careful if your sprinkler zone for your turf is the same as the one for your shrub beds. Turf requires more water.
7. Provide some shade in the afternoon to conserve moisture retention.
8. Mulch with organic material, not rock, to increase water retention and improve soil condition.
9. Do not over fertilize, be judicious – excess fertilizer means the need for water and pruning increase; fertilizer contains salts and can compound a bad situation.
10. Annuals – mound the soil with a high grade annual potting mix which contains Osmocote; treat regularly with fungicide.

### **\*\*\*The Following Plant List Contains Plants That Have a High Salt Tolerance\*\*\***

#### **Flowers:**

- Crown of Thorns (*Euphorbia milii*)
- Geranium (*Pelargonium x hortorum*)
- Ivy geraniums (*Pelargonium peltatum*), commonly used in hanging baskets.
- Lantana (including *L. camara* 'New Gold' and *L. montevidensis*)
- Penta, Dwarf or New Look (*Pentas lanceolata* 'New Look') – medium-high tolerance
- Penta, Red (*Pentas lanceolata* red) – medium-high tolerance
- Petunia (*Petunia* spp.)
- Salvia, Victoria Blue (*Salvia farinacea*)

**Foliage/Accent:**

- Agave/Century Plant (many *Agave* “Century” plants) 6-8’
- Agave/Foxtail Agave
- Giant Leather Fern (*Acrostichum danaeifolium*) 8’

**Ornamental Grasses:**

- Muhly Grass (*Muhlenbergia capillaries*) 1-3’
- Pampas Grass (*Cortaderia selloana*) 6-10’
- Sand Cordgrass (*Spartina bakeri*) – medium-high tolerance, 3-6’

**Groundcovers and Vines:**

- Beach Morning Glory/Railroad Vine (*Ipomoea pes-caprae*) ½’
- Beach Sunflower (*Helianthus debilis*) 1-2’
- Blanket Flower (*Gaillardia pulchella*) 2’
- Blue Daze (*Evolvulus glomeratus*) 2’
- Bougainvillea (*Bougainvillea* spp.) dwarf form 2’; others 8-12’
- Confederate jasmine (*Trachelospermum jasminoides*) – medium-high tolerance
- Coontie (*Zamia floridana*)
- Creeping Fig (*Ficus pumila*) – medium-high salt tolerance
- Daylily (*Hemerocallis* hybrids) – evergreen type only, usually yellow
- Flame Vine (*Pyrostegia venusta*) – orange flowers
- Giant Leather Fern (*Acrostichum danaeifolium*) 8’
- Green Island Ficus (*Ficus microcarpa* ‘Green Island’) 2’
- Juniper, Bar Harbor (*Juniperus horizontalis* ‘Bar Harbor’)
- Sea Oxeye Daisy (*Borrchia frutescens*) – yellow flowers, 3’
- Spider Lily (*Hymenocallis latifolia*) – white flowers, 3’

**Shrubs:** (Note – some shrubs are routinely not allowed their full height potential; additionally many can be made into multi-trunked small trees)

- 7-Year Apple (*Casasia clusiifolia*) 8-15’
- Arboricola (*Schefflera arboricola*) ‘Trinette/Goldfinger’, ‘Capella’ and solid green varieties – medium-high tolerance, 10’
- Bay Cedar (*Suriana maritima*) 10’
- Bougainvillea (*Bougainvillea glabra*) 8’
- Cape Honeysuckle (*Tecomaria capensis*) – medium-high tolerance, 6-10’
- Cardboard Plant (*Zamia furfuracea*) cannot be pruned in height, 2-6’
- Carissa/Natal Plum (*Carissa macrocarpa*) 10’
- Cocoplum (*Chrysobalanus icaco*) – Red Tip is prettier but more salt sensitive than green variety 10-15’
- Croton, Piecrust (*Codiaeum variegatum* ‘Piecrust’) – medium-high tolerance, 3-6’
- Croton, Red Spot (*Codiaeum variegatum* ‘Red Spot’) – medium-high tolerance, 3-6’
- Croton, Stoplight (*Codiaeum variegatum* ‘Stoplight’) – medium-high tolerance, 3-6’
- Croton, Apple Blossom/Icetone (*Codiaeum variegatum* ‘Mrs. Icetone’) – medium-high tolerance, 3-6’
- Fiddlewood (*Citharexylum spinosum*) – panicles of white flowers, 6-15’
- Firecracker (*Rusellia equisetiformis*) – best cascading or in hanging basket, 4-5’
- Green Buttonwood (*Conocarpus erectus*) up to 25’, can be kept at 5-6’

- Hibiscus, Dwarf (*Hibiscus rosa-sinensis*) Must be sprayed with *Bonsai*, a growth inhibitor, when normal larger growth appears. Vanderlaans Nursery, Lake Worth, FL is the major grower. 4'
- Indian Hawthorne (*Raphiolepis indica*) – pale pink flowers, 4'
- Indian Hawthorne, Majestic Beauty (*Raphiolepis decourii* 'Majestic Beauty') 10-12'
- Jamaican Caper (*Capparis cynophallophora*) – pink/white flowers, 9-16'
- Juniper, Shore (*Juniperus conferta*) – medium-high tolerance, 2'
- Marbleberry/Japanese Ardisia (*Ardisia escallonioides*) – fragrant white flowers, 10-15'
- Myrsine/Rapanea (*Myrsine guianensis*) 15'
- Necklace Pod (*Sophora tomentosa*) – light yellow flowers, 6-8'
- Oleander (*Nerium oleander*) – various flower colors available, 10-15'
- Pittosporum (*Pittosporum tobira*) 6-8'
- Saw palmetto (*Serenoa repens*) – *S. repens* 'Silver' also available, 3' and greater
- Schilling's Dwarf Holly (*Ilex vomitoria* 'Schilling's Dwarf') 2'
- Sea Grape (*Coccoloba uvifera*) 4-30'
- Silver Buttonwood (*Conocarpus erectus* var. *sericeus*) 20-25'
- Silver/Tall Sea Oxeye Daisy (*Borrchia arborescens*) – yellow flowers, 3'
- Silverthorn (*Elaeagnus pungens*) – very small white fragrant flowers, 10-15'
- Simpson's Stopper (*Myrcianthes fragrans*) – small fragrant white flowers, 8-25'
- Southern Wax Myrtle (*Myrica cerifera*) 20'
- Spanish Stopper (*Eugenia foetida*) 15-20'
- Varnish Leaf (*Dodonaea viscosa*) 8-15'
- Yaupon Holly, Dwarf (*Ilex vomitoria* 'Nana') 3'
- Xanadu (*Philodendron* 'Xanadu') – medium-high tolerance, provide shade, 2-3'

#### Trees:

- Blolly (*Guapira discolor*) 30'
- Dragon Tree (*Dracaena draco*) 30'
- Fiddlewood (*Citharexylum spinosum*) – white flower panicle, 20'
- Frangipani/Plumeria (*Plumeria* spp.) – medium-high tolerance, var. flower colors, 15-25'
- Geiger (*Cordia sebestena* and *C. lutea*) – orange or yellow flowers, 25'
- Gumbo Limbo (*Bursera simaruba*) 40'
- Jamaican Dogwood (*Piscidia piscipula*) – lavender/white flowers, 35'
- Lignum Vitae (*Guaiacum sanctum*) - blue flowers, 15'
- Madagascar Olive (*Noronhia emarginata*) – yellow flowers, 25'
- New Zealand Tea Tree (*Leptospermum scoparium* 'Helen Strybing') - small pink/red flowers, 6-15'
- Paradise (*Simarouba glauca*) – medium-high tolerance, 50'
- Pitch Apple (*Clusia rosea*) – pink/white flowers, 25'
- Pigeon Plum (*Coccoloba diversifolia*) 25'
- Podocarpus, Broadleaf (*Podocarpus nagi*) 25'
- Red Bay (*Persea borbonia*) 25'
- Redberry Stopper (*Eugenia confusa*) 20'
- Sapodilla (*Manikara zapota*)
- Screw Pine (*Pandanus utilis*) 25'
- Sea Grape (*Coccoloba uvifera*) 30'
- Shady Lady Black Olive (*Bucidia*) 25'
- Silver Buttonwood (small standard, single or multi-trunked) 25'
- Simpson's Stopper (*Myrcianthes fragrans*) – white fragrant flowers, 15-25'

- Southern Live Oak (*Quercus virginiana*) 60'
- Soapberry (*Sapindus saponaria*) 25'
- Spanish Stopper (*Eugenia foetida*) 15'
- Tropical Almond (*Terminalia catappa*)
- Verawood (*Bulnesia arborea*) – golden yellow flowers, medium-high tolerance, 40'
- Yaupon Holly (*Ilex vomitoria*) 20'

#### **Palms:**

- Bottle (*Hyophorbe lagenicaulis*) 12'
- Cabbage/Sabal (*Sabal palmetto*) 40'
- Coconut (*Cocos nucifera*) 60'
- Florida Thatch (*Thrinax radiata*) 20'
- Key Thatch (*Thrinax morrisii*) 20'
- Seashore (*Allagoptera arenaria*) – available? 4-8'
- Silver (*Coccothrinax argentata*) 8-10'
- Spindle (*Hyophorbe verschaffeltii*) 20'

#### **References:**

- *Landscape Plants for the Gulf and South Atlantic Coasts*, Robert Black & Edward Gilman
- *Betrock's Guide to Landscape Palms*, Alan Meerow
- *Easy Gardens for South Florida*, Pamela Crawford
- *Best Garden Color for Florida*, Pamela Crawford
- *Florida's Best Native Landscape Plants*, Gil Nelson
- *Ornamental Tropical Shrubs*, Amanda Jarrett
- Salt-Tolerant Plants for Florida, R. J. Black, Univ. of Florida IFAS publication
- *Waterwise, South Florida Landscapes*, S. Florida Water Management District
- Internet

(Prepared by Jan McLaughlin, 2/25/07)