

## Landscaping in Hot and Dry Conditions in Alachua County Fact Sheet #65

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You only need to spend one summer in Alachua County to discover what a hot environment we have in North Central Florida. The heat together with sandy soils and periodic droughts make for tough growing conditions for plants. If you have hot, dry, and sunny conditions in your landscape, you need to select plants that are tough and well adapted to that environment. So, when the sun is beating down, check out these tips and plant list which was created especially for gardeners in Alachua County.

### Tips for plant success in hot and dry locations

- **Select healthy plants** without signs of disease or insect damage.
- **Check the roots of a plant before purchasing.** Avoid buying “root or pot bound” plants. You may gently slip the plant out of the pot to see how crowded the roots are. These plants demand more water and care to become established in your garden.
- **Water the plants well** before planting to make sure they are not water stressed before being placed in the ground.
- **Water all plants regularly until they begin to grow** where they are planted. After planting, water every day for the first week, then decrease to every other day for the second week, and go to twice weekly on the third week. Shrubs and trees need only one gallon every 4 days but will need this for 6 months. How often you water is more important than how much you water.
- **Water if signs of plant stress appear.** Morning wilting, leaf yellowing, and leaf drop are the plants way of signaling “Water Me”.
- **Add water directly onto the roots.** Water will roll off very powdery, dry soil so apply water slowly. A circle of raised soil can be made outside the root area to prevent water runoff.
- **Provide temporary shade** when possible for new transplants.
- **Mulch, mulch, mulch!** Mulch holds moisture in the soil, reflects the sun’s rays, decreases the temperature of the soil, prevents erosion, and decreases weeds. Any mulch but cypress may be used. A 3 to 4 inch layer is ideal. The smaller the pieces of mulch, the better it holds water. As mulch decomposes the small pieces mix with the soil adding organic debris which gives further water holding capacity. Pull mulch away from the base of plants 1-2 inches to let water run onto roots and decrease fungus on stems and trunks. Beware of a tendency for some mulches to harden on top during dry times causing water to run off the surface. If this occurs you will need to stir the surface.
- **Plant in the late afternoon.** Less evaporation loss from the leaves during night time hours allow recovery from stress of the day’s heat.
- **Group plants** together that require the same amount of water. Placing several plants together in a bed allows each to shade the roots of the other, cooling the soil and conserving water.

## Avoid

- **Disturbing the soil during a dry period.** Opening the soil with a tool will let moisture under the surface of the soil escape.
- **Stimulating plant growth** by fertilizing, pruning, or overwatering. This may drain a stressed plant's resources causing plant decline or death.

## Did You Know???

- A layer of mulch 75 mm thick decreases evaporation from the soil 70%
- Soil that is bare can increase in temperature in the sun 12 degrees C in 30 minutes. In contrast, the temperature of mulched soil only increases 1 degree C.
- In full sun soil temperature can reach 150 degrees. Ever try to walk barefoot on hot sand at the beach??
- Moist sand is cooler than dry sand.
- Sugar content of produce is decreased in hot weather.
- Lawns need 20 to 35 inches of irrigation water per year while most woody plants in mulched areas require approximately 10 inches.
- 1 inch of water/1000 ft of ground = 624 gallons.
- Less than 1% of water that a plant uses is for photosynthesis. The rest is lost to transpiration.
- The large size of sand particles create many channels for water to seep between them. Thus water runs through sand at .25 inches an hour compared to through clay at .05 inches an hour.

- The sun's intensity may be more damaging than the actual temperature.
- Plants that can live in hot, dry conditions have developed ways to conserve water. These may include: fleshy leaves, small leaves, or roots that store water. Other plants cope with waxy leaves that slow water loss or hairs on leaves that pick up water from the air. Silvery leaves reflect the sun's rays from their surface. Some plants have these parts naturally but others have been bred to live in dry conditions.
- Plants with a large amount of leaves compared to their roots, pot bond plants, container plants, and newly planted ones generally have difficulty retaining enough water to live. Check your plants for wilted or loss of lower leaves, a grayish color to a leaf, loss of or no flowers, no new growth. All this can be indications of heat and drought stress. Stressed plants are more susceptible to disease and insects.

More information can be found on the website [edis.ifas.ufl.edu](http://edis.ifas.ufl.edu). Check out fact sheets ENH 70 and ENH 72 or call a Master Gardener at 352 955-2402.

# Selected Plants for Hot & Dry Conditions for Alachua County Landscapes

## TREES

- \* American Holly (*Ilex opaca*) W
- \* Carolina holly (*Ilex ambigua*) W
- Chinese Elm var (*Ulmus Parvifolia*)
- Crape Myrtle spp. (*Lagerstroemia indica*) W
- East Palatka Holly (*Ilex x attenuata 'East Palatka'*) W
- \* Florida chinquapin (*Castanea floridana*) W
- \* Live Oak (*Quercus virginiana*) B,W
- \* Persimmon (*Diospyros virginiana*) W
- \* Pignut hickory (*Carya glabra*) W
- \* Pine spp. (*Pinus*) W
- \* Sand Live Oak (*Quercus germinata*) W
- \* Shining Sumac (*Rhus copallina*)
- \* Southern Magnolia (*Magnolia grandiflora*) W
- \* Southern red cedar (*Juniperus silicicola*) B,W
- \* Southern Red Oak (*Quercus falcata*) B,W
- \* Winged Elm (*Ulmus alata*) B,W

## PALMS

- Butia Palm (*Butia capitata*)
- Cabbage Palm (*Sabal palmetto*) W
- \* European Fan Palm (*Chamaerops humilis*)
- \* Saw palmetto (*Serenoa repens*) B,W
- \* Scrub Pometto (*Sabal etonia*) B,W

## VINES

- Asiatic jasmine (*Trachelosperumum*)
- Carolina Yellow Jessamine (*Gelsemium sempervirens*)
- \* Confederate Jasmine (*Trachelosperumum jasminoides*)
- Coral Honeysuckle (*Lonicera sempervirens*) H
- \* Cross Vine (*Bignonia capreolata*) H
- \* Hyacinth Bean (*Dolichos lablab*) annual
- Muscadine grape (*Vitis rotundifolia*) W
- \*\* Passionflower (*Passiflora spp.*) B,H
- \* Railroad Vine (*Ipomoea pes-capri*)
- \* Trumpet Vine (*Campsis radicans*) B,H
- \*

## GRASSES

- Pampas Grass (*Cortaderia selloana*)
- \* Gulf Muhlygrass (*Muhlenbergia capillaris*)
- \* Sand Cordgrass (*Spartina bakeri*)
- \* Lovegrass (white) (*Eragrostis elliottii*)
- \* Lovegrass (purple) (*Eragrostis spectabilis*)
- \* Fakahatchee (*Tripsicum dactyloides*) B, W
- Fakahatchee dwarf (*Tripsicum floridanum*)

## SHRUBS

- \* American Beautyberry (*Callicarpa americana*) W
- Autumn Sage (*Salvia greggii*) B,H
- Bottlebrush (*Callistemon spp.*) B,H
- Burford's Holly (*Ilex cornuta 'Burfordii'*) W
- \* Coral bean (*Erythrina herbacea*) H,W
- \* Darrow's blueberry (*Vaccinium darrowii*) B,W
- \* Firebush (*Hamelia patens*) B,H,W
- Firethorn (*Pyracantha coccinea*) W
- \* Florida Privet (*Forestiera segregata*) W
- Golden Dew Drop (*Duranta repens*) B,H,W
- \* Hercules club (*Zanthoxylum clava-herculis*) B
- Hummingbird bush (*Anisacanthus quadrifidus*) H
- Indian Hawthorn (*Rhaphiolepis umbellata*)
- Japanese pittosporum (*Pittosporum tobira*)
- Jasminum mesnyi (*Primrose jasmine*)
- Knock Out® Rose (*Rosa radrazz*)
- Loropetalum (*Loropetalum chinesis*)
- Nellie Stevens Holly (*Ilex x 'Nellie R. Stevens'*)
- \* Parson's Juniper (*Juniperus davurica 'Parsonii'*) W
- \* Paw Paw, pineland (*Asmimina reticulata*) B,W
- \* Paw Paw, scrub (*Asimina obovata*) B,W
- Pineapple guava (*Feijoa sellowiana*)
- Plumbago (*Plumbago auriculata*) B
- Porterweed (*Stachytarpheta spp.*) B
- Roses, antiques (*pink pet, belinda dream, mutablis*)
- \* Shiny Blueberry (*Vaccinium myrsinetes*) W
- Shore Juniper (*Juniperus conferta*) W
- \* Southern Black-haw (*Viburnum rufidulum*) W
- Texas Sage (*Leucophyllum frutescens*)
- \* Wax myrtle (*Myrica cerfera*) B,W
- \* Wild Olive (*Osmanthus americanus*) W
- \* Winged Sumac (*Rhus copallinum*) W
- \* Yaupon holly (*Ilex vomitoria*) B,W
- \* Yellow Anise (*Illicium parviflorum*)

## GROUND COVERS

- Alachua Red Rose (*Rosa*)
- \* Matchweed (*Phylum nodifolia*)
- \* Powder puff (*Mimosa strigillosa*) B

## PERENNIALS

- African iris (*Diets iridoides*)
- \*\* Blackeye susan (*Rudbeckia spp.*) B,W
- \* Bracken (*Pteridium aquillinum*)
- Bulbine (*Bulbine frutescens*)
- \* Butterfly Weed (*Asclepias tuberosa*) B
- \*\* Chapman's blazing star (*Liatris chapmanii*) B
- Cigar Plant (*Cuphea ignea*) B,H
- \*\* Coneflower (*Echinacea spp.*) B
- \*\* Crinum lily (*Crinum spp.*)
- \* False rosemary (*Conradina canescens*) B
- Firecracker (*Russelia equisetiformis*) B,H
- \*\* Goldenrod (*Solidago spp.*) B,W
- Lantana (*all but camara*) B
- \*\* Mexican hat (*Ratibida columnaris*) B,H
- \* Perennial Peanut (*Arachis glabrata*)
- \* Rain lily (*Zephyranthes spp.*)
- Silky golden aster (*Pityopsis graminifolia*) B,H
- \* Society garlic (*Tulbaghia violacea*)
- \* Spotted horsemint (*Monarda punctata*)
- \*\* Standing cypress (*Ipomopsis rubra*) B,H
- \* Tickseed (*Coreopsis spp.*) H
- Twin flower (*Dyschoriste oblongifolis*) B,W
- Moss verbena** (*Glandularia puchella*) B
- \* Whirling Butterflies (*Gaura lindheimeri*) B
- Wild Indigo, white (*Baptisia alba*) B
- Wormwood (*Artemisia absinthium*)
- Yarrow (*Achillea millefolium*)

## CACTUS, CACTUS LIKE, SUCCULENTS

- Aloe, medicinal (*Aloe vera*)
- Aloe, soap (*Aloe saponaria*) H
- \* Bear grass (*Yucca filamentous*) B
- Century Plant (*Agave americana*)
- \* Coontie (*Zamia pumila*) B,W
- Gold moss (*Sedum acre*)
- \* Hardy Prickly Pear (*Opuntia humifusa*)
- Hen & Chicks (*Sempervivum tectorum*)
- \* Mound lily yucca (*Yucca gloriosa*)
- Sago (*Cycas revoluta*)
- \* Spanish Bayonet (*Yucca aloifolia*) B

## ANNUALS

- \* Beach Sunflower (*Helianthus debilis*)
- \*\* Black Foot Daisy (*Melampodium*)
- \*\* Blanket Flower (*Gaillardia pulchella*)
- Cockscomb (*Celosia*) B
- Cosmos (*Cosmos bipinnatus*)
- Dahlberg daisy (*Thymophylla tenuiloba*) B
- Dakota gold (*Helenium amarum*)
- Globe amaranth (*Gomphrena globosa*)
- Marigold spp. (*Tagetes*)
- Mexican Sunflower (*Tithonia*) B,W,H
- Periwinkle (*Vinca spp.*) B,H,W
- Purslane (*Portulaca grandiflora*)
- \* Red salvia (*Salvia coccinea*)
- \*\* Tickseed (*Coreopsis spp.*)

## EDIBLES

- \*\* Blackberry (*Rubus spp.*) W
- \*\* Blueberries (*Vaccinum spp.*)
- Fennel (*Foeniculum vulgare*)
- Lavender (*Lavandula augustifolia*) B
- Olive (*Olea europa*)
- Oregano (*Origanum*)
- Pear (*Pyrus spp.*)
- Pecan (*Carya illinoensis*)
- Peppers hot/ornamental (*Capsicum annum spp.*)
- Persimmon oriental (*Diospyros kaki L var*)
- \*\* Plum (wild & cultivated) (*Prunus spp.*) B,W
- Pomegranate (*Punica granatum*)
- Rosemary (*Rosemarinus officinalis*)
- Sage (*Salvia officianlis*)
- Sweet potato vine (*Ipomoea batatas spp.*)
- Thyme (*Thyme vulgaris*)

B butterfly

W wildlife (birds, squirrels, etc)

\* native plant

H hummingbird

\*\* some are native, some hybrids

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