

DROUGHT TOLERANT TREES FOR THE SOUTHEAST

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You can be sure that all plants need water. However, some plants are able to resist drought better than others. The means by which plants cope with drought varies considerably and impacts how we should use these plants in the landscape. Some plants are "drought tolerant" simply due to an extensive root system, but will suffer if planted where the roots are restricted in the landscape or reduced during transplanting. Other plants are able to conserve water due to limited leaf areas, have leaves that prevent water loss, or can tolerate extreme dehydration.

In many cases the drought tolerance of most any plant can be enhanced by providing better growing conditions. Providing an extensive rooting zone (from 1-4 yd³ / inch in trunk diameter) will increase available soil moisture during periods of drought. Similarly, reducing competing vegetation, use of organic soil amendments, and mulch will help increase and conserve soil moisture. Also, avoid mixing plantings of drought tolerant and drought sensitive plants. Drought tolerant plants will often out compete other plants for water.

The following list of recommended trees includes a variety of plants that have demonstrated varying degrees of drought tolerance in our climate. No single species is suited for all sites and consideration should be given to soil conditions, local occurrence of diseases and insects, microclimate, hardiness zone, and mature tree size when selecting any plant. Although, the plants listed below are drought tolerant, they may not be tolerant of other stresses, particularly poor drainage.

Acer buergerianum (trident maple)
Acer campestre (hedge maple)
Acer ginnala (amur maple)
Acer leucoderme (chalkbark maple)
Acer truncatum and *A. tuncatum x platanoides* hybrids
Aesculus californica (California buckeye), summer deciduous.
Aesculus pavia (red buckeye)
Albizia julibrissin (mimosa)
Carpinus spp. (hornbeams)
Castanea mollissima (Chinese chestnut)
Carya illinoensis (pecan)
Catalpa speciosa (catalpa)
Cedrus spp. (cedar)
Celtis spp. (hackberry)
Cercis spp. (redbud)
×*Chitlpa tashkentensis* (chitalpa), hybrid between *Catalpa bignonioides* and *Chilopsis linearis*
Chionanthus retusus (chinese fringe tree)
Cladrastis kentukea (yellowwood)
Cornus mas (corneliancherry dogwood)
Cornus angustata (angustata dogwood)
Corylus colurna (Turkish filbert)
Cotinus coggygria (common smoketree)
Cotinus obovatus (American smoketree).
Crataegus spp. (hawthorn)
Cupressus arizonica (Arizona cypress)
Diospyros virginiana (persimmon)
Elaeagnus angustifolia (elaeanus)
Eriobotrya japonica (loquat)

Fraxinus pennsylvanica (green ash)
Fraxinus velutina (velvet ash)
Ginkgo biloba (ginkgo)
Gleditsia triacanthos (honeylocust)
Gymnocladus dioicus (Kentucky coffeetree)
Ilex spp. (hollies): *Ilex vomitoria* (yaupon), *I. x 'Nellie R. Stevens'*, etc.
Juniperus spp. (junipers): *J. virginiana* in particular.
Koelreuteria spp. (golden raintree)
Lagerstroemia spp. (crapemyrtle)
Maackia amurensis (amur maackia)
Maclura pomifera (osage orange) Fruitless, thornless cultivars like 'White Shield' are now available.
Magnolia grandiflora (southern magnolia)
Malus spp. (crabapples)
Nyssa spp. (gums)
Pinus spp. (pines): *P. palustris* (longleaf), *P. pinea* (Italian stone), *P. thunbergiana* (Japanese black),
P. virginiana (scrub). *P. taeda* (loblolly) is probably the best for clay soils.
Pistacia chinensis (Chinese pistache)
Platanus spp. (planetrees)
Prunus spp. (cherries)
Ptelea trifoliata (hoptree)
Pyrus spp. (pears)
Quercus spp. (oaks): *Q. acutissima* (sawtooth), *Q. macrocarpa* (bur), *Q. robur* (English),
Q. virginiana (live), *Q. phillyreoides* (ubame), *Q. myrsinifolia*.
Raphiolepis indica (indian hawthorn)
Rhus spp. (sumac)
Robinia spp. (locust)
Sapindus drummondii (western soapberry)
Sophora japonica (Japanese pagodatree)
Taxodium distichum (baldcypress)
Tamarix spp. (tamarix) (avoid in areas where they naturalize)
Tilia tomentosa (silver linden)
Ulmus spp. (elms), particularly *U. parvifolia* (lacebark elm) and *U. alata* (winged elm).
Vitex spp. (Chastetree)
Zelkova serrata (Japanese zelkova)

Related references:

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