

## Our Dying Urban Forest: Solutions (Albuquerque)

David Cristiani, revised 4/11/12

**Summary:** An array of formerly ignored, but hardy trees can replace dying or habitual mesic trees...but one may have to revise their expectations of what a tree looks like and how it performs.

Face it. Trees grow better back east (or even in the warmest deserts). In Albuquerque's northern Chihuahuan Desert setting, tree choices are limited by a combination of summer heat, some winter freezing, alkaline soils, and incredible dryness most of the year.

As our eastern forest-inspired tree canopy declines, savvy people envision a limited use of tree species more adapted to our setting, designed for specific locations: **general areas** of our communities, where modest water is harvested off of paving and buildings along roads and natural drainages, and **oasis areas** where extra moisture concentrates, imitating the natural models of arroyos and canyons; even floodplain models can apply to the largest properties in valley areas, far from structures where roots are less likely to impact those structures and hardscape.

You should note:

- 1) Trees from **dry regions** differ from **humid-region** trees, responding to their **different environments**:
  - a. **Low and wide** spreading (rarely over 15 feet tall), spaced to compete for water; humid region trees are tall and upright, competing for sunlight more than water
  - b. **Smaller leaves** to minimize water loss; coastal forest trees bear no resemblance, with large foliage that often turns brilliant colors in fall
  - c. **More than one trunk** to accommodate strong winds and increased shading of their roots; forest trees in humid places often have one trunk, as do the "lollipop" shaped trees often sold locally
- 2) Many suitable species can have **limited availability** but are worth the search; avoid trees grafted onto rootstock of less drought-hardy species.
- 3) Trees grown on less water tend to **grow slower** and smaller when deep irrigation is not reliable. But you know better than to plant a fast growing tree that causes expensive problems, don't you?

Special thanks to Nick Bettner, Dave Ferguson, and Ted Hodoba for contributing to this sampling of just a few great trees, which deserve further use everywhere drought-tolerant trees can benefit Albuquerque:

Common Name	Botanical name	West Mesa	Valley	Heights	Foothills
<b>General Areas</b> (low water use)					
<i>Evergreen</i>					
HAIRY MOUNTAIN MAHOGANY	Cercocarpus breviflorus			+	N
CLIFFROSE	Cowania mexicana	+	+	+	N
ONESEED JUNIPER	Juniperus monosperma	N	+	N	N
PINON ( <i>seed-grown, only</i> )	Pinus edulis		+	+	N
GRAY OAK	Quercus grisea		+	+	N
DESERT LIVE OAK	Quercus turbinella	+	+	N	N
JOSHUA TREE	Yucca brevifolia	+	+	+	+
SOAPTREE	Yucca elata	N	N	N	+
PALM YUCCA	Yucca faxoniana	+	+	+	+
BLUE YUCCA	Yucca rigida	+	+	+	+
BEAKED YUCCA	Yucca rostrata	+	+	+	+
MOUNTAIN YUCCA	Yucca schottii		+	+	+
THOMPSON YUCCA	Yucca thompsoniana	+	+	+	+
TORREY YUCCA	Yucca torreyi	+	+	+	+

N = native to this area

+ = highly adapted to this area (*\*avoid or minimize use next to natural open spaces, where aesthetics will conflict*)

**the  
XERIC  
ZONE**

**Quercus :: :**

The Xeric Zone > Foundations :: **Our Dying Urban Forest: Solutions (Albuquerque)**

Common Name	Botanical name	West Mesa	Valley	Heights	Foothills
<b>General Areas</b> (low water use)					
<i>Deciduous</i>					
CATCLAW ACACIA	Acacia greggii	+	+	+	
CANYON HACKBERRY	Celtis reticulata	N	N	N	N
MEXICAN REDBUD	Cercis mexicana	+	+	+	+
DESERT WILLOW	Chilopsis linearis	N	N	N	N
DESERT OLIVE	Forestiera neomexicana	+	N	+	N
CHINABERRY	Melia azaderach	+	+	+	+
PISTACHIO	Pistacia vera	+		+	+
TEXAS HONEY MESQUITE	Prosopis glandulosa	+	+	+	+
WESTERN HONEY MESQUITE	Prosopis torreyana	N	N	N	N
SCREWBEAN MESQUITE	Prosopis pubescens	+	N	+	+
PRAIRIE FLAMELEAF SUMAC	Rhus lanceolata		+	+	+
SOAPBERRY	Sapindus drummondii		N	+	+
CHASTE TREE	Vitex agnus-castus	+	+	+	+
CHINESE DATE	Ziziphus jujube	+	+	+	+
<b>Oasis Areas</b> (low-med water use)					
<i>Evergreen</i>					
*CEDAR	*Cedrus spp.		+	+	+
*CYPRESS	Cupressus spp.	+	+	+	+
ALLIGATOR JUNIPER	Juniperus depeana		+	+	N
REDBERRY JUNIPER	Juniperus pinchotii	+	+	+	+
ROCKY MOUNTAIN JUNIPER	Juniperus scopulorum		+	+	+
*AFGHAN PINE	*Pinus eldarica	+	+	+	+
*MEDITERRANEAN STONE PINE	*Pinus pinea	+	+	+	+
ESCAPMENT LIVE OAK	Quercus fusiformis	+	+	+	+
MEXICAN BLUE OAK	Quercus oblongifolia			+	+
<i>Deciduous</i>					
SUGARBERRY	Celtis lavaegata		+	+	+
NETLEAF HACKBERRY	Celtis reticulata	N	N	N	N
REDBUD	Cercis spp.	+	+	+	+
ARIZONA WALNUT	Juglans major	+	N	+	N
OSAGE ORANGE	Maclura pomifera		+		+
ARIZONA SYCAMORE	Platanus wrightii		+		
POMEGRANATE	Punica granatum	+	+	+	+
TEXAS RED OAK	Quercus buckleyi	+	+	+	+
GAMBEL OAK	Quercus gambelii		+	+	N
CHISOS RED OAK	Quercus gravesii	+	+	+	+
BUR OAK	Quercus macrocarpa		+	+	+
CHINQUAPIN OAK	Quercus muhlenbergii	+	+	+	+
ENGLISH OAK	Quercus robur	+	+	+	+
WAVYLEAF OAK	Quercus undulata		+	+	N
CHINESE PISTACHE	Pistacia chinensis	+	+	+	+

**N** = native to this area

**+** = highly adapted to this area (*\*avoid or minimize use next to natural open spaces, where aesthetics will conflict*)