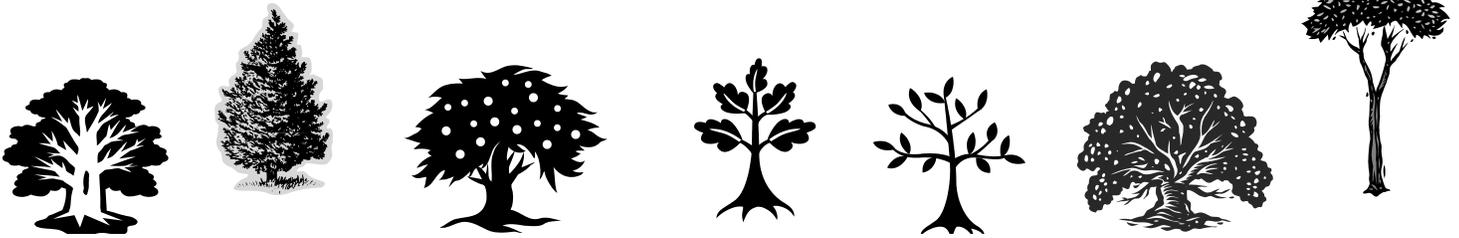




TREES ADAPTED TO ROSWELL AND SOUTHEASTERN NEW MEXICO



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TREES

The most drought tolerant trees are not necessarily small in stature although some are only fifteen feet in height. Many of our better specimen trees will attain heights of 60 to 90 feet, and grow and survive on 19 inches of water or less a year.

ARIZONA ASH (*Fraxinus velutina*)

Also known as velvet ash, Arizona ash is a medium sized tree with fairly small, bright green leaves. Little water, alkaline soils, and high sunlight intensity are conditions in which these trees can survive, although they do best with adequate water. A good choice for landscape use but may be susceptible to some insect pest problems. These trees are fast growing, reaching 30 to 40 or more feet when mature. They develop a compact, symmetrical head that turns golden yellow in the fall. Arizona ash is best represented by the species *Fraxinus velutina* and its cultivar *Fraxinus velutina glabra* cv. Modesto. The species *F. velutina*, represented in western New Mexico in the Gila country, is probably the best adapted to our area.

ARIZONA SYCAMORE (*Platanus wrightii*)

A tree which may attain heights of 80 to 100 feet and a diameter of 4 to 6 feet. The branches will be spreading or erect and forming a broad, open crown. This sycamore is very conspicuous because of its bark, which exfoliates in large, thin plates to expose the smooth white inner layer. Be aware that this tree needs to be planted near water or in a sub-irrigated area.

ARIZONA WALNUT (*Juglans major*)

An excellent shade tree with filtered shade that allows for lawn growth underneath. The large, dark green canopy will grow 30 to 90 feet. It may be self-pruning, dropping twigs, especially when growing under stress. It may limit growth of plants within the drip line by production of allelopathic chemicals. It is well adapted for this area and an interesting and beautiful shade tree. These trees are capable of growing to tremendous size and should be planted with this in mind.

COTTONWOOD (Populus spp.)

A tree with a broadly rounded crown and widely spreading branches. Has a rapid growth rate if properly watered, 40 to 100 feet mature height. An excellent shade tree where space permits with dense shade but also heavy leaf drop. Self-pruning by dropping twigs and may limit growth of plants within the drip line by competition for light and water. Several species are adapted to this area. **Should be planted where water is not limited** as native trees are found in creeks and riverbeds. A high water-needs tree.

DESERT OLIVE (Forestiera neomexicana)

A versatile plant with a stiffly angular branch pattern, smooth gray bark, and small green leaves with gold fall color. It is adaptable to many landscape uses including screening, hedges, windbreaks, and specimen focal points. Songbirds relish the blue berries produced by female plants, but the seedless males are a better choice near pavement and in courtyards.

DESERT WILLOW (Chilopsis linearis)

A graceful plant with pink/purple orchid-like flowers, bright-green willowy foliage, and an attractive sculptural form. It grows rapidly while young, and is very drought-tolerant once established. A heat lover, desert willow leafs out late in the spring and flowers throughout summer. Hummingbirds are drawn to its lightly fragrant blooms.

ELM:

CEDAR ELM (Ulmus crassifolia)

This tree is not a native of New Mexico, but it is a native of neighboring Texas. It is a well adapted tree for this area, tolerating alkalinity and limestone soils. Cedar elm is completely resistant to Elm Leaf Beetle, and has small rough leaves, blooms in late summer, and does not present an allergy problem. This is a beautiful, dark-green leafed tree that reaches a height of 40 to 60 feet, and has a canopy of about 35 feet in this area.

LACE BARK ELM (Ulmus parvifolia)

A tree growing to 50 to 80 feet in height with a 40 foot crown, small leaves, and an open canopy. This tree is non-aggressive, blooming in the fall in this area and thus not making seed, and is not an allergy-causing tree. It has bark that is exfoliating or so-called "scaly" that peels off to leave smooth bark.

EVERGREENS:

AFGHAN PINE (Pinus eldarica)

A well adapted pine that thrives in droughty, arid areas with alkaline soils and limited water conditions. One of the best desert pines. A large tree 30 to 50 feet high, 25 to 30 feet wide, with rapid growth when young.

ARIZONA CYPRESS (*Cupressus arizonica*)

A large evergreen tree with dense foliage. A rapid growth rate makes it an excellent choice for windbreaks where space is available. An excellent tree as a single where space is permitted, very drought-tolerant and insect resistant.

ROCKY MOUNTAIN JUNIPER (*Juniperus scopulorum*)

Scale-like foliage and stringy bark are characteristics of this tree, with smaller needles and upright growth. Bark is reddish to gray-brown and scaly. Small, blue berries are juicy and edible. Rarely exceeds 30 to 40 feet mature height.

ALLIGATOR JUNIPER (*Juniperus deppeana*)

Large tree, evergreen, pyramidal or round topped, attaining a height of 65 feet. The trunk is stout and short, and an unusual feature for a juniper is the conspicuous square scales of the bark which resemble the scales of an alligator. The leaves are bluish green, resinous, and scale-like.

PINON (*Pinus edulis*)

The most drought tolerant native species of Pine. The contorted trunks of some make it an excellent focal point. Native-dug pines should have a root base proportionate to the top growth, and burlapped and wire-wrapped to prevent damage during shipping and transplanting. Be sure to remove **both** burlap and wire during planting. Extremely common and excellent choice for southwest landscape although grows slowly and does better in cooler climates. Some insect problems.

PONDEROSA PINE (*Pinus ponderosa*)

A popular landscape ornamental, the stately, long-needled evergreen is one of the most widely distributed western conifers. Adapted to many soils, it can reach mature heights of 165 feet, but in our area it's slow in growth and usually does not reach full height. The bark has a vanilla or butterscotch fragrance. Old trees have a characteristic yellow bark.

REDBUD:

EASTERN RED BUD (*Cercis canadensis*)

A small tree, usually straight, single trunked with rounded or flattened canopy, blooming with small, clustered, rose-purple flowers before the foliage comes out in the spring. This is a beautiful ornamental tree that is well adapted to this area. In summer heat in southeast New Mexico, this tree develops a rust problem that makes the leaves unsightly.

MEXICAN RED BUD (*Cercis canadensis var. mexicana*)

This tree is much like the Eastern Red Bud but is more adapted to extremely hot summers because of thick, shiny leaves and is not subject to Red Bud rust.

TEXAS RED BUD (*Cercis candensis* var. *texensis*)

This tree seldom occurs as a single-trunk tree, but is usually multi-trunked. Does not reach the heights of the Mexican or Eastern Red Buds. Blooms are slightly redder.

FALSE INDIGO (*Amorpha fruticosa* or *canescens*)

False Indigo forms an airy multiple-trunked specimen if given ample moisture while young. Blue-black flower spikes with orange pollen appear above the compound foliage in May and June and are more "interesting" than they are "pretty". In cultivation since 1724, False Indigo is a useful shelterbelt planting attractive to quail.

GOLDEN RAIN TREE (*Koelreuteria paniculata*)

Golden Rain Tree is a slow growing deciduous tree reaching 20 to 30 feet in height with an open branching habit. In mid-summer, 12 inch long clusters of bright yellow blooms cover the whole tree and result in interesting seed pods. Bright lustrous green foliage turns brilliant shades of yellow, crimson and bronze in the fall.

HACKBERRY (*Celtis occidentalis*)

A variety of this tree is commonly found in northern and western United States. It is well adapted to alkaline and limestone soils with a high pH and can be grown in any area in southeastern New Mexico. It is a rapid growing tree with good branching habits growing to about 90 feet in height with a canopy of about 50 feet. It provides food for many birds and small animals. This tree does not cause allergy conditions. Very drought tolerant.

JAPANESE PAGODA TREE (*Sophora japonica*)

Fast growing, this tree grows 40 to 60 feet in height. It has fern-like leaves and, in mid-summer, beautiful creamy white flowers. Excellent landscape accent. Drought tolerant, low moisture use, very well adapted to this area.

JAPANESE ZELKOVA (*Zelkova serrata*)

Large shade tree approaching the American Elm in size and looks. Disease resistant, tolerant of wind, and moderately drought tolerant. An excellent choice for shade in the landscape and has beautiful fall color.

JUJUBE (*Zizyphus jujuba*)

A narrow, columnar tree with a graceful, arching branch pattern and edible fruits. Native to arid portions of Asia and Africa, Jujube is well known for its sweet date-like fruit and suited for use here in windbreaks and as thorny barrier plantings. Drought tolerant.

LOCUST:

BLACK LOCUST (*Robinia pseudo-acacia*)

A fast growing, drought-tolerant tree, it attains heights of 40 to 60 feet. It has penny-size leaflets and bears racemes of white or pink flowers in May and June. This tree has thorny branches, although improved varieties can now be bought in a thornless state with purple or pink spring blossoms. It is useful in windbreaks, for shade, and especially in lawn areas.

HONEY LOCUST (*Gledetsia triacanthos*)

In its natural state, this tree grows to be 80 to 90 feet tall, with a thorny trunk and branches and a loose open crown. Improved varieties are thornless, have tighter crowns and denser foliage. All male trees are also now available which do not produce the large beans, which are unsightly and a constant clean up problem. Better known varieties for selection are *Globemaster* and *Shademaster*. The tree many small leaflets and is not recommended for planting near swimming pools. Honey locust does very well on our alkaline soils but should not be watered continuously with only lawn sprinkler systems as it will cause surface roots. Encourage deep roots by deep watering methods.

ROSE LOCUST (*Robinia neomexicana*)

A rapid growing tree which grows up to about 24 feet in height with spiny branches and pink, heavy flowers which hang pendulously from the tree from early spring to mid-July.

NEW MEXICO ALDER (*Alnus oblongifolia*)

A native tree 30 to 50 feet in height with erect or spreading branches that form a rounded crown. This tree is a suitable substitute for birch in this area. It is well adapted to areas close to water or with a sub water system. If growing on a well drained soil, it takes an excessive amount of water.

OAKS:

EMORY OAK (*Quercus emoryi*)

An oak that grows into a large 60 to 100 foot nicely rounded shaped tree with black bark. Usually considered an evergreen oak, it loses its old leaves in the spring. This oak is well adapted to areas of less than 18 inches of rain per year and 3000 to 8000 feet in elevation. Highly tolerant of high pH soils (7.8 - 8.3 pH) this tree would be regarded as a "treasure" to have in your yard.

SHUMARD OAK (*Quercus shumardi*)

Although this tree is not a native of this area, we highly recommend this oak. A member of the black oak family, it is one that has adapted to high pH soils and will reach heights of 40 to 80 feet. This oak is dark green throughout the summer and provides beautiful reds and oranges in fall color. This tree should be used in this area instead of any other red oak.

BUR OAK (*Quercus macrocarpa*)

This tree grows to 100 feet, with heavy, spreading limbs and a broad crown. It is massive in size and well-adapted to our area soils and related problems. This oak is dark green in color throughout the summer, with occasional trees turning red in the fall. Most of these trees turn bright yellow in the fall.

GAMBEL OAK (*Quercus gambelli*)

This is a native oak that grows as a shrub or small tree throughout much of New Mexico. In our area, this tree reaches heights of 30 feet. Having large dark green leaves in the spring through summer, it also has good fall color. A heavy shade tree worthy of consideration for any landscape planning in this area.

CHINQUAPIN OAK (*Quercus muhlenbergii*)

A beautiful tree due to large, bright green leaves covering the outside canopy and giving a clean interior and a light, airy feeling. It grows 40 to 60 feet in height and has a canopy of 40 to 50 feet! A rapidly growing oak in its early years, it can reach 35 feet in height with a 30 foot canopy in about 18 to 20 years. It naturally sheds its light, grayish-brown bark continually throughout the year, adding texture and interest to the landscape. This tree would merit the highest consideration for landscape use in this area.

SOUTHERN LIVE OAK (*Quercus virginiana*)

A large evergreen oak which may reach 60 to 80 feet tall and have a large spreading crown and massive limbs close to the ground. If originating from trees on limestone soils from the western area of its natural range, this tree is well adapted to the soils in this area. The live oak may not reach its full potential size in New Mexico.

There are numerous native New Mexico oaks that should be considered for landscape use. Oaks native to New Mexico normally grow with less than 16 inches of moisture a year and grow rather rapidly in their early years. *Palmer Oak, Canyon Live Oak, Mexican Blue Oak, Graves Oak, Arizona White Oak, Silver Leaf Oak and Net Leaf Oak* are examples.

SMOKE TREE (*Cotinus coggygria*)

A tree for all seasons. This tree receives its common name from the dark blue-green rounded leaves and fuzzy purple flowers. Mottled gold and orange fall foliage color creates striking seasonal displays. Its preference for poor, gravelly soils and full sun make it a good choice for harsh sites. A small tree with heights of 10 to 15 feet.

SOAPBERRY (*Sapindus drummondii*)

A small tree, very slow growing with white flowers in showy panicles in May and June, followed by translucent amber fruits in autumn. The shiny, bright-green leaves are texturally interesting. The fruits contain a toxic alkaloid, *saponin*, used in soap making, but a beautiful native tree.

TREES THAT SHOULD BE BANNED IN THE ROSWELL AREA ARE AS FOLLOWS:

SALT CEDAR (*Tamarix gallica*)

 This tree introduced into the United States for erosion control has become a huge problem in the arid southwest and has invaded most of our river flats and valleys. The tree establishes solid stands and forces out native trees and shrubs. Salt cedars use huge amounts of water while depositing salts in the soil so other trees and shrubs cannot be established without eliminating the salt cedar. Management is expensive and takes years to permanently eliminate stands.

TREE OF HEAVEN (*Ailanthus spp.*)

 Tree of Heaven is a small tree with very rapid, uncontrollable growth like a weed. It establishes quickly and colonizes with many sprouts, resulting in a high number of trees in a short period. This tree will send sprouts from the tree's roots to your neighbors' property, and if not controlled, will soon take over. Even unwatered and uncared for, it will move into dry areas and take over. This tree has been the cause of many lawsuits in the western United States, and is a very heavy user of water where available.

MULBERRY (*Morus rubra. alba etc.*)

 This is a very good shade tree and would be acceptable if the female tree was planted, but because people do not want to bother with the fruit and bird mess, the fruitless male is planted, therefore causing a severe allergy condition. We currently have a critical problem with the pollen of this tree and any additional planting should absolutely be avoided.



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