EVERGREEN CONTAINER SEEDLINGS

Afghanistan Pine

Latin Name:	*Pinus eldarica*
Description:	Afghan Pine begins life as a small pyramidal plant that very much resembles a classic Christmas tree, but later in life becomes a more picturesque medium to large coniferous tree. This is one of the few pines suitable for widespread use in Texas on alkaline soils. .
Tree Size:	Upright, medium to large conifer tree; Height: (35 ft to 45 ft), rarely 60 ft; Width: (15 ft to 25 ft)
Exposure:	Sun, partial sun
Flower:	Not ornamental
Blooms:	Spring, winter
Fruit:	3” to 4” long woody cone
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Low Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Problems:	Pine tip moth can kill new shoots and alter tree shape, if not treated; will not tolerate wet sites.
Comments:	Adaptable to a variety of soil types including those that are alkaline and moderately salty as long as they are well drained. Drought and heat tolerant once established. Not as well adapted to East Texas as it is West Texas.

Austrian Pine

Latin Name:	*Pinus nigra*
Description:	Austrian Pine is a medium to large stature coniferous tree introduced from Europe that has become a popular ornamental in the northeast and midwestern USA. The canopy of dark green needles is dense and stiff pyramidal in youth becoming more flat-topped with age. In Texas, this plant should be reserved for use in the northern portions of the state, the Texas Panhandle, and adjacent regions of Oklahoma and Arkansas.
Tree Size:	Medium to large, upright conifer tree; Height: (40 ft to 60 ft), larger in its native land; Width: (20 ft – 30 ft)
Exposure:	Sun
Flower:	Not ornamental; leaf type, evergreen.
Growth Rate:	Moderate; blooms in spring
Features:	Stiff, medium-length, dark green needles.
	• **Heat Tolerance:** Medium Heat Tolerance • **Water Requirements:** Medium Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7
Comments:	One of the better adapted pines to salt and alkaline soils, but not particularly heat tolerant. Requires irrigation in Texas. Dothistroma needle and Diplodia tip blight can be serious limitations.

Deodar Cedar

Latin Name:	*Cedrus deodara*
Description:	Deodar Cedar is a medium to large evergreen tree of regal form. Pyramidal in youth, later developing into a picturesque specimen, often with a flat-topped crown. Cultivars with more blue tinted needles; offers an alternative to the "Blue Spruces". Premature crown flattening due to dieback from borers, cold, or drought is common in Texas.
Tree Size:	Medium to large; Height: (40 ft – 50 ft); Width: 40 ft – 50 ft)
Exposure:	Sun, partial sun
Leaf Type:	Evergreen
Flower:	Inconspicuous
Blooms:	Summer
Fruit:	Oblong dehiscent resinous cones
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Medium Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** High Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 7,8,9
Problems:	Deodar weevil can be a problem.
Comments:	Better tree for East Texas than Central or West Texas. When vigorous the species tends to be too large for most suburban lots, but borers, poor soils, and cold tend to render this point moot in most of Texas.

Italian Stone Pine

Latin Name:	*Pinus pinea*
Description:	Moderately fast-growing pine adapted to arid and semi-arid zones. It is not cold hardy. Self-prunes lower branches as it reached maturity.
Tree Size:	Large (35 ft – 65 ft)
Leaf Type:	Evergreen
Growth Rate:	Moderate
Soil Needs:	Prefers well-drained sites, but tolerates all soil textures.
Tolerances:	Drought
Attributes:	Seeds eaten by wildlife.
Features:	Rounded shape; dense crown
Problems:	Susceptible to ice damage
Hardiness:	Texas Zones: 7,8,9
Comments:	Seeds are edible (pine nuts)

Oriental Arborvitae

Latin Name:	*Platycladus orientalis (Thuja orientalis)*
Description:	Oriental Arborvitae is a large evergreen shrub or small tree. Crown shape is variable ranging from narrowly pyramidal to rounded. The plant looks deceptively small in youth but can occasionally reach medium tree size. The tree tends to maintain multiple leaders and the crown tends to split under snow and ice loads. The foliage can develop a brownish cast in winter in cold climates.
Tree Size:	Shrub, large shrub, spreading conifer; Tree, small to medium tree; Height: variable (10 ft – 25ft); Width: (8 ft to 20 ft)
Growth Rate:	Moderate
Leaf Type:	Evergreen
Exposure:	Sun, partial sun
Flower:	Not ornamental
Blooms:	Spring
Features:	Good visual screen; has a very uniform shape; small round woody cone
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Low Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Problems:	Foliage may cause dermatitis in some individuals.
Comments:	Very adaptable, drought, salty soils and high pH. While Oriental Arborvitae is very drought tolerant, it is intolerant of soil disturbance and excess soil moisture. Bagworms and spider mites are the primary limitations, while juniper blight and leaf miners can be occasional problems.

HARDWOOD CONTAINER SEEDLINGS

Catalpa

Latin Name	*Catalpa speciosa*
Description:	A fast-growing tree, catalpa prefers moist soil, but will tolerate drier sites. Its characteristic showy flowers, large leaves, and long pods make it easily recognizable.
Tree Size:	Large (25 ft to 35ft)
Leaf Type:	Deciduous
Growth Rate:	Rapid
Soil Needs:	Prefers rich, moist soils, but tolerates drier sites.
Tolerances:	Drought; alkaline soils.
Attributes:	Showy or fragrant flower; attractive fruit; large leaves.
Features:	Showy white to purple flowers in spring and early summer; produce long, slender pods.
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Low Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** High Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Problems:	Leaves may scorch during hot, dry periods; flower, leaves and fruit can be a nuisance.
Comments:	Tough tree well-suited to open areas away from walkways; catalpa worms are prized as fishing bait.

Desert Willow

Latin Name:	*Chilopsis linearis*
Description:	Desert Willow is a delicate small deciduous tree native to West Texas. Desert Willow derives its name from the resemblance of the foliage to that of willows (Salix spp.). In addition to its ability to withstand arid conditions, it offers recurring flushes of white to lavender maroon Catalpa-like flowers in small panicles. Growth is irregular and requires attention to trunk development during early growth.
Tree Size:	Large shrub or small tree; Height: (15 ft to 25 ft); Width: 15 ft to 20 ft)
Exposure:	Sun
Flower:	White to lavender-maroon, bi-colors
Blooms:	Spring, summer, fall
Features:	Showy, pink flowers persist through spring and summer; extremely drought-tolerant.
Growth Rate:	Rapid
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Low Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** High Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 7,8,9,10
Problems:	Susceptible to overwatering in managed landscapes.
Comments:	Actually, quite well adapted throughout Texas except for colder portions of the Panhandle; good xeriscape plant; persistent seed pods can be messy; the related X Chitalpa tashkentensis is a hybrid between Chilopsis linearis and Catalpa bignonioides with white to pale pink Catalpa-like flowers in recurring flushes,but is susceptible to Alternaria leaf spot.

Honeylocust

Latin Name:	*Gleditsia triacanthos*
Description:	The Thornless Common Honeylocust is a medium to large deciduous shade tree popular for its vase-shaped, stratified branching, filtered shade, and soft-textured summer foliage and yellow fall color. The large pods can be a maintenance liability. The species type (Gleditsia triacanthos var. triacanthos) has large fierce thorns and is not planted in landscapes.
Tree Size:	Medium to large; Height (30 ft – 50 ft), 100 ft+ in more favorable climates; Width (20 ft – 40 ft)
Exposure:	Sun
Flower:	Green
Blooms:	Spring
Growth:	Rapid
Fruit:	Large 6 inch to 18 inch twisted flattened pods.
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Medium Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Comments:	Selection from the northern portion of the species' range is not particularly vigorous in USDA zones 8 and 9; subject to similar disease problems as the species type.

Lotebush

Latin Name:	*Ziziphus obtusifolia*
Description:	It may not be big, but this bush provides a lot of impact for wildlife. The thorns make it a great spot for small mammals and birds like quail to hide out, and the berries are great food for them as well.
Tree Size:	Shrub (4 ft – 6 ft)
Soil Needs:	Adaptable to a variety of soil types.
Tolerances:	Drought; heat
Attributes:	Texas native; fruit eaten by wildlife.
Leaf Type:	Deciduous
Growth Rate:	Moderate
Features:	Dark blue berries in late spring.
Hardiness:	Texas Zones: 7,8,9,10
Problems:	Sharp thorns can be a nuisance.
Comments:	Good cover and food for small mammals and birds; especially preferred by quail.

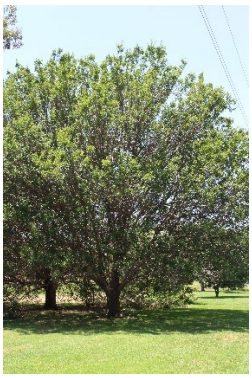
Mexican Buckeye

Latin Name:	*Ungnadia speciosa*
Description:	Mexican Buckeye derives its name from the superficial resemblance of its fruiting structure to that of the true buckeyes. Mexican Buckeye grows to be a large shrub to small multi-stem deciduous tree. Its primary landscape feature is its pink-purple spring flowers that resemble those of Redbuds. A decent yellow fall color sometimes develops.
Tree Size:	Large shrub or small tree; Height: (10 ft – 12 ft), rarely 30 ft; Width: (8 ft – 10 ft).
Exposure:	Sun, partial sun
Flower:	Pink, rose, pink-purple
Blooms:	Spring
Leaf Type:	Deciduous
Growth Rate:	Moderate
Fruit:	Three-valved woody capsule containing poisonous red-brown to black marble-size seeds
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Low Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** High Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 7,8,9
Problems:	Requires pruning to develop one or more trunks.
Comments:	Tolerates almost any soil as long as it is well drained. Very heat, drought, and soil salt tolerant. Performs better in eastern portions of the state than most West Texas natives.

Osage Orange (Horse Apple)

Latin Name:	*Maclura pomifera*
Description:	Osage Orange is a large shrub to medium size deciduous tree with a rounded spreading canopy of dark glossy green leaves. It is native to Texas and Oklahoma and is useful as a shade tree for very difficult sites. Spiny forms are used as living fences and the wood was once a favorite manufacture of bows by native Americans.
Tree Size:	Large shrub; medium tree; Height: (25 ft – 30 ft); Width: (25 ft – 40 ft)
Exposure:	Sun, partial sun
Flower:	Green, small, not ornamental
Blooms:	Spring
Fruit:	Grapefruit-sized globose syncarp of drupes on female trees, not edible and a maintenance liability.
Growth Rate:	Moderate
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Low Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** High Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Comments:	A tough adaptable plant that has few pest/disease problems but limited ornamental appeal. Use of mature thornless male selections is encouraged if it is intended as a shade tree.

Texas Ash



Latin Name:	*Fraxinus texensis*
Description	Texas Ash is a smaller more drought tolerant version of the White Ash. This ash can make an attractive medium size deciduous shade tree in Texas and is probably a better choice for Central and West Texas than White Ash.
Tree Size:	Small to medium tree; Height: (35 ft – 45 ft); Width: (30 ft – 40 ft)
Exposure:	Sun
Flower Color:	Green or purple
Blooms:	Spring
Features:	Fall color is yellow, orange and purple. Male trees are seedless. Small woody winged samara in 6” to 8” long panicles.
Growth Rate:	Rapid
Attributes:	Texas native; reliable fall color. Long-lived shade tree with low maintenance.
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Medium Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 7,8,9
Problems:	Borers can affect younger trees.
Comments:	Cold hardiness beyond USDA zone 7 has not been fully tested; probably deserves a longer look for use in Texas landscapes; sometimes classified as a western variety of white ash.

Western Soapberry

Latin Name:	*Sapindus drummondii*
Description:	Western Soapberry is an under-utilized Texas native tree. Western Soapberry is equally at home in the dry canyons of West Texas as in an East Texas landscape. The crown of clean pinnately compound leaves forms an upright oval.
Tree size:	Small to medium; Height: (30 ft – 40 ft); Width: (20 ft – 30 ft)
Exposure:	Sun
Flower:	Creamy white. Fall color is a good yellow.
Blooms:	Spring and summer
Fruit:	Translucent yellow-orange drupes, attractive seeds or fruit eaten by wildlife.
Growth Rate:	Moderate
Leaf Type:	Deciduous
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Low Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Comments:	Tolerates most soils as long as they are well drained; fruit can be a liability by mid-winter; drought, wind, heat, and limestone soil tolerant; a bark beetle has become a recent problem on this species.

HARDWOOD BAREROOT SEEDLINGS

American Plum

Latin Name:	*Prunus americana*
Description:	This shrub to small tree is adapted to a variety of soil types and is a valued cover and food source for wildlife.
Tree Size:	Shrub, small tree (10-20 feet)
Leaf Type:	Deciduous
Growth Rate:	Moderate
Soil Needs:	Adapted to a wide range of soil types
Tolerances:	Drought
Attributes:	Important for wildlife nesting, loafing and bedding; foliage and fruit browsed by wildlife.
Hardiness:	Texas Zones: 6-7
Problems:	Plum pocket and tent caterpillars can cause some issues.

Black Cherry

Latin Name:	*Prunus serotina*
Description:	While the messy red-purple fruit makes Black Cherry a marginal ornamental shade tree, the wood is valued in furniture and panel crafting and is important for wildlife food and shelter. Farmers and ranchers watch for downed cherry trees and remove them immediately as the wilted leaves contain high levels of hydrogen cyanide producing compounds that can be fatal to livestock and pets if consumed.
Tree Size:	Medium to large; Height: (60 ft – 80 ft), rarely 120 ft; Width: (30 ft – 50 ft)
Exposure:	Sun
Flower:	White
Leaf Type:	Deciduous
Growth Rate:	Moderate
Blooms:	Spring
Fruit:	Small clusters of small purple-black to red-black cherries, fleshy part of fruit used as a culinary flavoring.
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Low Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Comments:	Several naturally occurring varieties of the species exist in various portions of Texas and if utilized in cultivated landscapes it would probably be wise to use seedlings from the regional variety.

Bur Oak

Latin Name:	*Quercus macrocarpa*
Description:	Bur Oaks are large trees native to several portions of Texas. They can be used as large shade trees for larger residential sites or parks. An upright rounded crown is formed above a short stout trunk, the wood is sold as white oak.
Tree Size:	Large tree; Height (60 ft - 80 ft); Width: (40 ft - 60 ft)
Exposure:	Sun
Leaf Type:	Deciduous
Flower:	Green, catkins and globose
Blooms:	Spring
Fruit:	Huge acorns to 2” long
Growth Rate:	Moderate to rapid
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Medium Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Comments:	Very durable, tolerates drought, heat, cold, and limestone soils; bit slow to establish and resume growth if transplanted as a large specimen; powdery mildew can be an occasional problem.

Chinkapin Oak

Latin Name:	*Quercus muehlenbergii*
Description:	Chinkapin Oak is an overlooked medium to large deciduous shade tree suitable for use in much of Texas. It is native to portions of Texas and can tolerate a range of soils and exposures including those of limestone origin. Seldom troubled by diseases or pests.
Tree Size:	Medium to large tree; Height: (50 ft – 60 ft); Width: (50 ft – 60 ft)
Exposure:	Sun
Growth Rate:	Moderate
Flower:	Green, monoecious, males in catkins
Blooms:	Spring
Fruit:	Acorns
Attributes:	Reliable fall color, acorns eaten by wildlife.
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Low Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** High Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Comments:	Tree destines to increase in popularity; good for the Panhandle region. Excellent shade tree; wildlife relish acorns.

Lacebark Elm

Latin Name:	*Ulmus parvifolia*
Description:	Lacebark Elm is one of the premier rapid growing shade trees in Texas. The fine textured foliage is little bothered by insects nor disease. Highly resistant to many common elm afflictions including Dutch Elm Disease. The highly ornamental exfoliating bark is a year-round asset.
Tree Size:	Medium tree; Height: (30 ft – 50 ft); Width: (30 ft – 40 ft)
Exposure:	Sun
Leaf Type:	Deciduous
Flower:	Green-brown
Blooms:	Summer, fall
Fruit:	Can take on bronzish colors on some clones
Attributes:	Reliable fall color
Problems:	Requires proper, regular pruning to develop strong branch structure.
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Medium Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9,10
Comments:	Often confused with the vastly inferior landscape tree, Siberian Elm (*Ulmus pumila*); the only real problems this elm experiences are cotton root rot, mistletoe, and occasionally black spot on the leaves.

Pecan

Latin Name:	*Carya illinoinensis*
Description:	Pecan is the state tree. No pun intended but it is a large tree with a stately crown. Despite its popularity as a dual-purpose shade and nut-bearing tree, many of the commercial cultivars are susceptible to foliar diseases that can inhibit their ornamental appeal. Pecans also tend to be messy lawn trees, constantly dropping fruit, leaves, and twigs. Probably better landscape trees in the western portions of the state than in the humid eastern half.
Tree Size:	Large tree; Height: (70 ft – 80 ft), much larger in deep bottomland soils in its native environment; Width: (50 ft – 60 ft)
Exposure:	Sun
Leaf Type:	Deciduous
Growth Rate:	Moderate
Flower:	Females inconspicuous, males in catkins
Blooms:	Spring
Fruit:	Pecans in thin husks
Features:	Nuts are an important wildlife food source; mature crown is open and airy.
Problems:	Brittle wood; susceptible to many insect pests throughout the year.
	• **Heat Tolerance:** High Heat Tolerance • **Water Requirements:** Medium Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** High Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Comments:	Best in deep well-drained soils, prone to Zinc deficiencies on alkaline soils.

Shumard Oak

Latin Name:	*Quercus shumardii*
Description:	Shumard Oak is a good medium to large shade tree and it is a Texas native. This red oak offers good red fall color on some individuals in favorable years. With selection of adapted origin, this is a durable landscape tree, with non-adapted origin this species is prone to chlorosis and is short-lived.
Tree Size:	Medium to large; Height: (50 ft – 60 ft); Width: (40 ft – 50 ft)
Exposure:	Sun
Flower Color:	Green, males in catkins
Blooms:	Spring
Fruit:	1” long striated acorns, good wildlife food
Leaf Type:	Deciduous
Growth Rate:	Rapid
Problems:	Susceptibility to oak wilt is a serious disease problem in some parts of Texas.
	• **Heat Tolerance:** Medium Heat Tolerance • **Water Requirements:** Medium Water Use • **Soil Requirements:** Low Soil Requirements • **Pest Tolerance:** Medium Pest Resistance • **Fertility Requirements:** Low Fertility Requirements
Hardiness:	Texas Zones: 6,7,8,9
Comments:	One of the best oaks for Texas landscapes with proper seed source selection.