

# **Native Tree Species**



### Blue Palo Verde

Annual Growth Rate: Fast Water Use: Low Thorny: Yes



### Palo Brea

Annual Growth Rate: Fast Water Use: Low Thorny: Yes



#### Cascalote

Annual Growth Rate: Moderate Water Use: Low Thorny: Yes



### Smoothie Cascalote

Annual Growth Rate: Slow Water Use: Low Thorny: No



### Velvet Mesquite

Annual Growth Rate: Moderate Water Use: Low Thorny: Yes



### Thornless Hybrid Palo Verde

Annual Growth Rate: Fast Water Use: Low Thorny: No



### Desert Willow

Annual Growth Rate: Fast Water Use: Low Thorny: No



### Thornless Mesquite

Annual Growth Rate: Moderate Water Use: Low Thorny: Minimal



### Ironwood

Annual Growth Rate: Slow Water Use: Low Thorny: Yes





-Powerline Friendly



**Blue Palo Verde** 

Parkinsonia Florida

Height: 30 feet Width: 30 feet

**Powerline Friendly:** No **Annual Growth Rate:** Fast

Root Damage Potential: Low

Sonoran Desert Native: Yes

**Allergenic:** High **Water Use:** Low

Heaviest Bloom Season: Spring

Flower Color: Yellow

Thorny: Yes

Tree Type: Deciduous

The Blue Palo Verde is the state tree of Arizona and is characterized by its blueish green bark. It has beautiful yellow flowers that attract various pollinators, but are a common source of allergies. This tree is hardy and can survive the sunny hot Arizona summers and can withstand temperatures down to 12°F.

Watering Needs: Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is needed and only provide supplemental watering during summer months if extremely hot and leaves and flowers look stressed.

Geographic Origin: Desert Southwest

**Did you Know:** Due to its small leaves, you might think it has a hard time photosynthesizing, but the green bark is a main way in which this tree goes

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through photosynthesis.

Palo Brea

Parkinsonia Praecox

Height: 25 feet Width: 25 feet

Powerline Friendly: Yes
Annual Growth Rate: Fast
Root Damage Potential: Low
Sonoran Desert Native: Yes

**Allergenic:** High **Water Use:** Low

Heaviest Bloom Season: Spring

Flower Color: Yellow

Thorny: Yes

Tree Type: Deciduous

Often confused with Blue Palo Verdes, Palo Breas often have a more twisted trunk and their green trunk is lime green and the color extends to the bottom of the trunk. It has beautiful yellow flowers that attract various pollinators, but are a common source of allergies. This tree can survive the sunny hot Arizona summers and can withstand temperatures down to 25°F.

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is needed and only provide supplemental watering during summer months if extremely hot and leaves and flowers look stressed.

Geographic Origin: Sonoran Desert

**Did you Know:** Due to its small leaves, you might think it has a hard time photosynthesizing, but the green bark is a main way in which this tree goes through photosynthesis.

### Cascalote Caesalpinia Cacalaco

Height: 15 feet Width: 15 feet

Powerline Friendly: Yes
Annual Growth Rate: Slow
Root Damage Potential: Low
Sonoran Desert Native: No

Allergenic: Moderate

Water Use: Low

**Heaviest Bloom Season:** 

Winter

Flower Color: Yellow

Thorny: Yes

Tree Type: Evergreen

Cascalotes are known for their prominent yellow flowers in the winter and spring. They are a small shrub like tree with thorns that resemble rose bush thorns. They grow best in full sun but are sensitive to colder temperatures.

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, you will need to water monthly during the winter months and every two to three weeks during summer months.

Geographic Origin: Mexican Tropics

**Did you Know?** Cascalotes are often used in the Mexican tannery industry because they are a great source of gallic and tannic acids. The city of Leon consumes over 13,000 pounds of cascalote daily.



# Smoothie Cascalote Caesalpinia Cacalaco 'Smoothie'

Height: 18 feet Width: 18 feet

Powerline Friendly: Yes
Annual Growth Rate: Slow
Root Damage Potential: Low
Sonoran Desert Native: No

Allergenic: Moderate

Water Use: Low

**Heaviest Bloom Season:** 

Winter

Flower Color: Yellow

Thorny: No

Tree Type: Evergreen



Cascalotes are known for their prominent yellow flowers in the winter and spring. They are a small shrub like tree. This variety has been bred for urban use and thus does not have the thorns the common variety has. They grow best in full sun but are sensitive to colder temperatures.

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, you will need to water monthly during the winter months and every two to three weeks during summer months.

Geographic Origin: Mexican Tropics

**Did you Know?** Cascalotes are often used in the Mexican tannery industry because they are a great source of gallic and tannic acids. The city of Leon consumes over 13,000 pounds of cascalote daily.

### Velvet Mesquite Prosopis Velutina

Height: 25 Feet Width: 25 feet

Powerline Friendly: No

Annual Growth Rate: Moderate Root Damage Potential: Low Sonoran Desert Native: Yes

Allergenic: Moderate

Water Use: Low

Heaviest Bloom Season: Summer

Flower Color: Cream

Thorny: Yes

Tree Type: Deciduous

Like many native desert trees, the Velvet Mesquite naturally grows as a shrub unless pruned up to mimic the traditional shape of a tree. These trees have a nitrogen-fixing bacteria that often improves our soil conditions. Velvet Mesquite prefer to be planted in full sun and do very well in a natural habitat.

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water is needed.

Geographic Origin: Arizona, Texas, and Mexico

**Did you Know?** Velvet Mesquites are used for a variety of purposes. Most notably, their wood is turned into charcoal and is prized for its delicious smoky BBQ flavor. Seed pods are ground up and turned into a flour that is still used by the Tohono O'ohdam people and is becoming commercially viable. Other parts of the tree have uses such as: a cold and flu remedy, candy, basketry, pottery, dye and to treat conjunctivitis, acne, and dandruff.



Thornless Hybrid Palo Verde-Parkinsonia Thornless Hybrid

Height: 25 feet Width: 25 feet

Powerline Friendly: No Annual Growth Rate: Fast Root Damage Potential: Low Sonoran Desert Native: Yes

Allergenic: High Water Use: Low

Heaviest Bloom Season: Spring

Flower Color: Yellow

Thorny: No

Tree Type: Semi-evergreen

This tree has beautiful yellow flowers that attract various pollinators, but are a common source of allergies. This tree is hardy and can survive the sunny hot Arizona summers and can withstand

temperatures down to 12°F.

Watering Needs: Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is needed and only provide supplemental watering during summer months if extremely hot and leaves and flowers look stressed.

**Geographic Origin:** Desert Southwest

Did you Know: Due to its small leaves, you might think it has a hard time photosynthesizing, but the green bark is a main way in which this tree goes through photosynthesis.

**Desert Willow** 

Chilopsis Linearis

**Height:** 25 feet **Width:** 20 feet

Powerline Friendly: Yes
Annual Growth Rate: Fast
Root Damage Potential: Low
Sonoran Desert Native: Yes

Allergenic: Low Water Use: Low

Heaviest Bloom Season: Midsummer

Flower Color: Pink

Thorny: No

Tree Type: Deciduous



They have a high drought and salt tolerance, and can survive with very little watering. Over-watering and can cause the tree to weaken due to rapid growth. This tree is fairly messy as it drops seed pods, flowers, and leaves. Desert Willow are very tolerant of our sunny arid environment and can withstand temperatures down to 0°F. Their flowers attract butterflies, hummingbirds and other pollinators.

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water is needed.

Geographic Origin: Southwest United States, Mexico

**Did you Know?** Although it has the name Desert Willow, it is not a member of the willow family. The name Desert Willow refers to the long narrow leaves of the tree. Indigenous people use the wood to make baskets, fence posts, and frames for homes, while the bark is used to make various fabrics and nets. In Mexico, the flowers and seed pods were dried and made into a tea to sooth coughs.



Thornless Mesquite-Prosopis Thornless

Height: 30 feet Width: 30 feet

Powerline Friendly: No

Annual Growth Rate: Moderate
Root Damage Potential: Low
Sonoran Desert Native: No

Allergenic: Moderate

Water Use: Low

Heaviest Bloom Season: Summer

Flower Color: n/a Thorny: Minimal

Tree Type: Deciduous

Thornless Mesquite prefer to be planted in full sun and do very well in a natural habitat.

Watering Needs: Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is needed and only provide supplemental watering during summer months if extremely hot and leaves and flowers look stressed.

**Did you Know?** Velvet Mesquites are used for a variety of purposes. Most notably, their wood is turned into charcoal and is prized for its delicious smoky BBQ flavor



## Ironwood Olneya Tesota

Height: 25 feet Width: 25 feet

Powerline Friendly: No
Annual Growth Rate: Slow
Root Damage Potential: Low
Sonoran Desert Native: Yes

**Allergenic:** Low **Water Use:** Low

Heaviest Bloom Season: Spring

Flower Color: Pale Purple

Thorny: Yes

Tree Type: Briefly Deciduous

The ironwood tree does well in full sun and is hardy to 15°F.

Watering Needs: Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is needed and only provide supplemental watering during summer months if extremely hot and leaves and flowers look stressed.

Geographic Origin: Sonoran Desert

Did you Know? Ironwood trees have very dense, hard wood, hence its name. Arizona and Sonora native populations used the wood to build and carve bowls and other cookware. Ironwoods are also known as "nurse" trees in the Sonoran Desert. During the summer months, animals will gather in its shade and smaller plants, including cacti, utilize the canopy as shelter from the sun. The flowers and seeds of an Ironwood are edible. Flowers can be eaten raw or candied and the sweet and nutty seeds are best when blanched or cooked.



# Non-Native Tree Species



#### **Chaste Tree**

Annual Growth Rate: Moderate Water Use: Moderate Thorny: No



### Red Push Pistache

Annual Growth Rate: Slow Water Use: Moderate Thorny: No



### Chinese Elm

Annual Growth Rate: Fast Water Use: Moderate Thorny: No



### Shoestring Acacia

Annual Growth Rate: Fast Water Use: Low Thorny: No



#### **Mastic Tree**

Annual Growth Rate: Slow Water Use: Low Thorny: No



### **Texas Olive**

Annual Growth Rate: Slow Water Use: Low to Moderate Thorny: No



### Mulga Acacia

Annual Growth Rate: Moderate Water Use: Low Thorny: No



### Olive Tree

Annual Growth Rate: Moderate Water Use: Low Thorny: No





-Powerline Friendly



**Chaste Tree** 

Vitex Agnus-Castus

Height: 20 feet Width: 20 feet

Powerline Friendly: Yes

Annual Growth Rate: Moderate
Root Damage Potential: Low
Sonoran Desert Native: No

Allergenic: Low

Water Use: Moderate

**Heaviest Bloom Season:** Summer **Flower Color:** White, Pink, or Violet

Thorny: No

Tree Type: Deciduous

Chaste Trees are often large shrubs, but can become small trees if the trunks are trained and pruned. Its beautiful, large cone shaped flowers attract various hummingbirds, butterflies and other pollinators. These often do well in a water conserving or dry garden setting. It tolerates dry ordinary soils without much care other than occasional deep watering. Plant in either full or reflected sun. Chaste tree can tolerate heat well, but is semi-hardy, tolerating temperatures as low as 10 - 20°F.

Geographic Origin: Mediterranean Region

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is only provide supplemental watering during summer months if extremely hot and leaves and flowers look stressed.

**Did You Know?** the extracts from this tree are recognized as effective treatments for symptoms of premenstrual dysphoric disorder, and premenstrual syndrome.

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The plant can become messy once the leaves begin to fall.

# Red Push Pistache *Pistacia Red Push*

Height: 40 feet Width: 35 feet

Powerline Friendly: No
Annual Growth Rate: Slow
Root Damage Potential: Low
Sonoran Desert Native: No

Allergenic: Low

Water Use: Moderate

Heaviest Bloom Season: n/a

Flower Color: n/a

Thorny: No

Tree Type: Deciduous

Red Push Pistache Trees are excellent shade trees that have adapted well to the desert heat and are also tolerant of colder temperatures. They do best in good draining soil and full sun. They have beautiful red, orange or yellow fall foliage.

Watering Needs: Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is needed and only provide supplemental watering during summer months if extremely hot and leaves look stressed.

Geographic Origin: China

**Did You Know?** The name Red Push comes from when the tree has new growth that is red in color.

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Chinese Elm *Ulmus Parvifolia* 

Height: 35 feet Width: 35 feet

**Powerline Friendly:** No **Annual Growth Rate:** Fast

Root Damage Potential: Moderate

Sonoran Desert Native: No

Allergenic: Moderate Water Use: Moderate

Heaviest Bloom Season: n/a

Flower Color: n/a

Thorny: No

Tree Type: Semi-deciduous

Chinese Elms are well adapted to a desert environment and are often used as street trees due to their tolerant of harsh conditions. Its large shade canopy and beautifully unique bark also make it a popular tree for residential landscapes.

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is

needed and only provide supplemental watering during summer months if

extremely hot and leaves look stressed.

Geographic Origin: China, Japan, North Korea, and Vietnam

**Did You Know?** The inner bark can be ground into a fine powder and used in breads and soups. Despite this being an elm tree, it is resistant to the Dutch Elm

disease.



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Shoestring Acacia Acacia Stenophylla

Height: 30 feet Width: 20 feet

Powerline Friendly: No
Annual Growth Rate: Fast
Root Damage Potential: Low
Sonoran Desert Native: No

Allergenic: Moderate

Water Use: Low

Heaviest Bloom Season: Spring

Flower Color: Pale Yellow

Thorny: No

Tree Type: Evergreen



Acacia stenophylla got the name "shoestring" and "pencil leaf" from the long, narrow phyllodes of the tree. This tree provides great filtered shade that is good for pool and patio settings. They can be great for screening area, but do just as well when displayed by itself. A. Stenophylla is a hardy tree that can tolerate temperatures as low as 18 °F and does best in full sun and well draining soil.

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water unless it is extremely hot and leaves and flowers look stressed.

Geographic Origin: Australia

**Did You Know?** This tree served as a food and lumber source for many ndigenous people. The wood from Acacia stenophylla have also been documented in the construction of clubs, fences, and boomerangs. The species has gained popularity as a landscape tree in the southwest within the last couple of decades.

Mastic Tree

Pistacia Lentiscus

Height: 15 feet Width: 20 feet

Powerline Friendly: Yes
Annual Growth Rate: Slow
Root Damage Potential: Low
Sonoran Desert Native: No

Allergenic: Low Water Use: Low

**Heaviest Bloom Season:** Spring **Flower Color:** Inconspicuous

Thorny: No

Tree Type: Evergreen

Does very well in dry areas. Is shrub like but with training and pruning can become a tree.

Watering Needs: Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no

supplemental water during the winter months is needed and only provide supplemental watering during summer months if extremely

hot and leaves and flowers look stressed.

Geographic Origin: Mediterranean Basin, Turkey, Iran

**Did you Know?** Mastic means "flexible" or "sticky," referring to the gum that is made from this tree. The mastic tree is also used to make perfumes, various pharmaceuticals, dental adhesives, and photo protectant varnishes.





ICE OF HEAT RESPONSE AND MITIGATION

Texas Olive Cordia Boissieri

Height: 10 feet Width: 10 feet

Powerline Friendly: Yes
Annual Growth Rate: Slow
Root Damage Potential: Low
Sonoran Desert Native: No

Allergenic: Low

Water Use: Low to Moderate Heaviest Bloom Season: Sring

Flower Color: White

Thorny: No

Tree Type: Evergreen

The Texas olive grows best in either full sun or partial shade. It is a messy tree, as it litters the ground with flowers and fruits. It requires training in order to achieve a tree-like form. This tree is semi-hardy, and damage to the leaves can happen at temperatures around 22-26°F.

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water unless it is extremely hot and leaves and flowers look stressed.

Geographic Origin: Texas/ Northeastern Mexico

**Did You Know?** This is actually not an olive tree at all. The name Texas Olive, comes from the size and shape of the fruit that is produced. In Mexico, the fruit from this tree are made into jelly to sooth colds and coughs.



### Mulga Acacia Acacia Aneura

**Height:** 15 feet **Width:** 15 feet

Powerline Friendly: Yes

Annual Growth Rate: Moderate

Root Damage Potential: Low

Sonoran Desert Native: No

Allergenic: Moderate

Water Use: Low

Heaviest Bloom Season: Spring

and Summer

Flower Color: Yellow

Thorny: No

Tree Type: Evergreen



Grows best in full sun and does not do well in fully shaded areas. It can endure temperatures as low as 20 °F but doesn't thrive in climates with cooler summers and harsh winters. It grows best in well-drained, sandy to loamy soils. Mulga acacias have nodules on its roots which house nitrogen fixing bacteria, which can be beneficial to plants in the surrounding area

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is needed and only provide supplemental watering during summer months if extremely hot and leaves and flowers look stressed.

Geographic Origin: Australia

**Did you Know?** Indigenous peoples used this tree to treat skin ailments, flu, coughs, colds, and warts. The Aboriginal people of Australia grind the seeds into a fine flour to mix with water, which can be consumed raw or cooked.



Olive Olea sp.

Height: 25 feet Width: 25 feet

Powerline Friendly: No

**Annual Growth Rate: Moderate** 

**Root Damage Potential:** 

Moderate

**Sonoran Desert Native:** Yes

Allergenic: Low Water Use: Low

Heaviest Bloom Season: Spring

Flower Color: Cream

Thorny: No

Tree Type: Evergreen



The olive tree originated in an area with hot dry summers and cool wet winters. Typically, the wind does the pollinating for the flowers, and few insects assist in the Olive's pollination. These trees can live a very long time and do great in Phoenix's arid environment. Rabbits can cause great harm to Olive trees, as they like to eat the bark, especially on young trees.

**Watering Needs:** Newly planted trees will need approximately five gallons of water every 5-7 days for two years. During the summer, more frequent irrigation may be needed, use your soil moisture meter to determine. Once established, no supplemental water during the winter months is needed and only provide supplemental watering during summer months if extremely hot and leaves and flowers look stressed.

Geographic Origin: Eastern Mediterranean

**Did You Know?** Many municipalities, including the City of Phoenix, only allow fruitless versions to be planted, in order to reduce pollen levels. Therefore, you will sadly, not be harvesting any olives from your tree!

