



Trees for Tomorrow: A New Project for Riverside MGs

**Riverside County Veteran Master Gardeners
9/14/2023**

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Why Trees? Why This Project?



We (Often) Have a 'Moisture' and (Always) a 'Tree Drought'

While there are ~ 9 M street trees in California, their density has decreased 30% since 1988. CA cities have the lowest tree canopy per capita (108 yd²) in the U.S.



Benefits of Urban Trees

- Cool urban heat islands (UHI)
- Provide shade
- Save energy
- Clean the air (remove dust, absorb pollutants) and release oxygen
- Absorb and store (sequester) carbon dioxide



- Provide windbreaks
- Capture runoff/stormwater flooding
- Beautify neighborhoods/increase property value/reduce crime
- Improve mental and emotional health
- Reduce glare and reflection
- Reduce noise
- Provide habitat for animals and microorganisms



Improper Tree Selection, Location, and Care Reduce Average Longevity 50-70%



Suggested Reading:

https://www.isa-arbor.com/education/resources/Vogt_AUFNov2015.pdf



The Costs of Maintaining and Not Maintaining the Urban Forest: A Review of the Urban Forestry and Arboriculture Literature

Jess Vogt, Richard J. Hauer, and Burnell C. Fischer

Abstract. Existing urban forest literature is strongest in its quantification and qualification of the benefits and care of trees, and not in its ability to assess the results of lack of investment in trees. This paper presents the results of a literature review on the “Costs of Not Maintaining Trees” commissioned by the ISA Science and Research Committee. The authors summarized the literature from within the field of arboriculture/urban forestry to answer the questions: What are the costs of maintaining trees and the urban forest? And, What are the costs of not maintaining trees? Present here is a detailed summary of the literature on the costs of maintenance and lack of maintenance for types of tree care commonly included in municipal budgets (planting, pruning, removal, pest and disease management) and a brief review of costs associated with less-studied types of tree care (including tree risk management; watering; mulching; fertilizing and nutrient management; staking, cabling, and bracing; tree protection; and infrastructure repair). The authors suggest that future literature should aim to examine the influence of maintenance regimes on costs and tree outcomes, including examining how the frequency, intensity, duration, and extent of tree maintenance activities is connected to the structure, function, and benefits of trees.

Key Words. Cost of Not Maintaining Trees; Literature Review; Maintenance Costs; Pruning; Planting; Removal; Municipal Forestry; Deferred Maintenance; Urban Forestry; Urban Tree Maintenance.

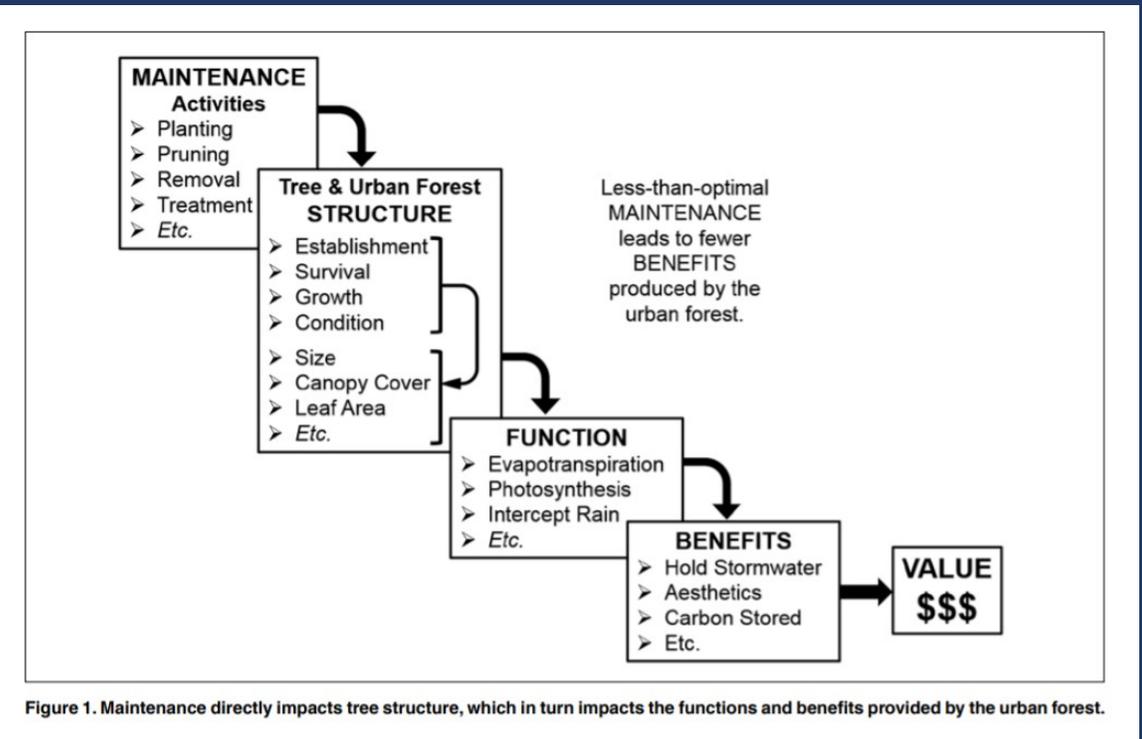


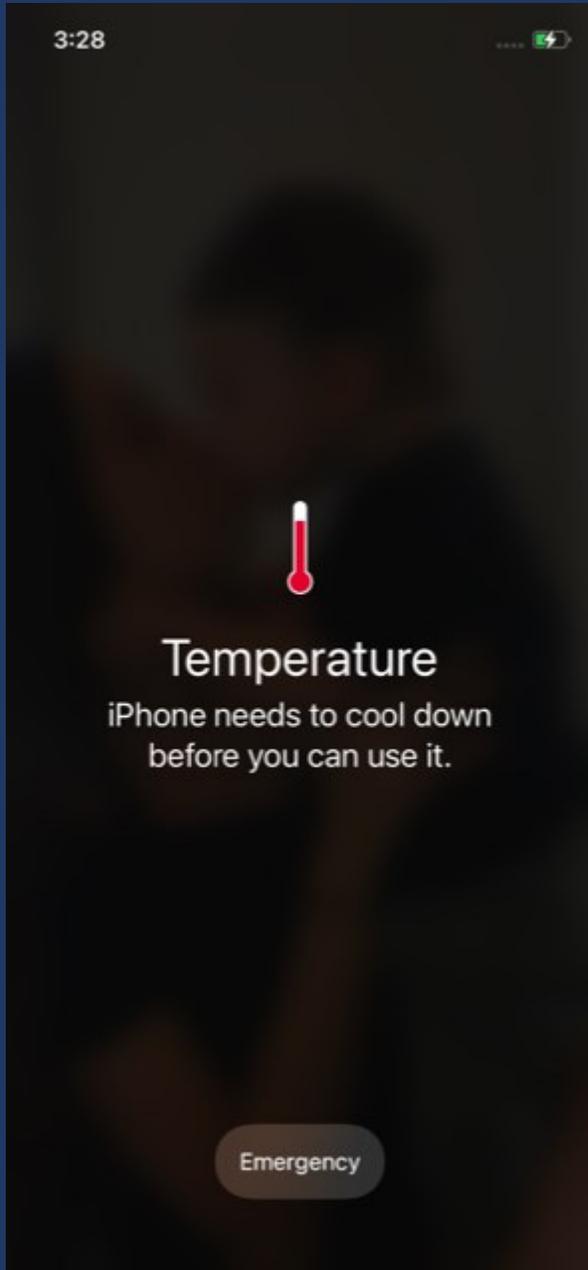
Figure 1. Maintenance directly impacts tree structure, which in turn impacts the functions and benefits provided by the urban forest.

Trees Cool Urban Heat Islands (UHIs)

Temperatures of impervious surfaces can be $>60^{\circ}\text{F}$ hotter than living plants and shaded surfaces in inland and desert cities



Artificial Turf Hotter Than Asphalt in Inland and Desert Cities



Master Gardeners are in an Excellent Position to Educate the Public and Decision-Makers Regarding the Benefits of Live Plants for Cooling Urban Heat Islands



Trees for Tomorrow Project

Bridging the Gap Between Research and Implementation



First Riverside County Event

Thanks to those who signed up!



UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources



FREE SHADE TREES

Saturday, September 23, 2023

10 AM – 12 PM



Louis Robidoux Parkland and Pecan Grove (LRPPG)
5370 Riverview Drive, Jurupa Valley, CA 92509

Do you live in the Jurupa Valley, CA area and want a free tree? Do you have space for it and your own transportation to bring it home? Are you free on September 23 to listen to a short talk by our UCCE Master Gardeners on its planting and care and to pick up your tree?

If so, please pre-register for a tree here:

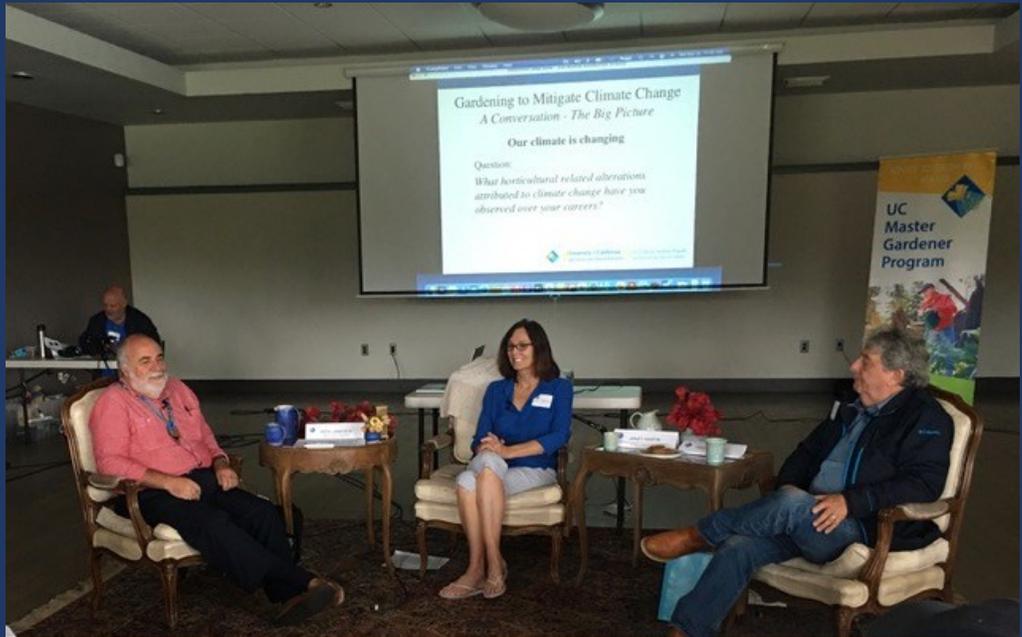
<https://ucanr.edu/freetreesjurupavalley>





Master Gardeners and their Partners are the Conduit











Trees for
Tomorrow Toolkit
(English and
Spanish)

Trees for Tomorrow Toolkit

Planting urban trees today to
ensure a healthy tomorrow

University of California
Agriculture and Natural Resources

June 2023

-Janet Hartin, UCCE Area
Environmental Horticulture Advisor
-UCCE Master Gardeners of San
Bernardino County



UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

PLANTING URBAN TREES TODAY TO ENSURE A HEALTHY TOMORROW

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Trees for Tomorrow Project

Purpose of the Toolkit

To provide information on developing successful UC Cooperative Extension “Trees for Tomorrow” tree education/tree giveaway projects to recreate such projects in other communities.

The project is relevant to the following UC Agriculture and Natural Resources (UCANR) priorities (Condition Changes):

Increased preparedness and resilience to extreme weather and climate changes; Increased ecological sustainability of landscapes; Improved water quality; Improved water-use efficiency; and improved community health and wellness.

Trees offer many ecosystem and societal benefits

- Climate resilient trees cool urban heat islands,
- Promote habitat and biodiversity,
- Filter pollutants from air and soil,
- Sequester carbon dioxide,
- Reduce the need for pesticides, and provide many other ecosystem and societal benefits



While enhancing tree canopy cover in all areas of California is important, urban heat islands are particularly problematic in interior valleys and desert areas of California. Dark-colored impervious surfaces such as asphalt can attain temperatures of more than 170° F in desert cities, 160° in valley cities, and 140° F in coastal cities.

The shade from a single tree can reduce these temperatures by more than 70°, 60°, and 50° F, respectively. This is important because third degree burns can occur when bare skin (including pet paws) comes in direct contact with surface temperatures as low as 120° F. In addition to the shade produced by a tree, transpiration cools the immediate environment, as well, reducing air temperatures directly around trees between 6° and 12° F.

Introduction

From Research to Greening Urban Spaces



As part of UC ANR / USFS (US Forestry Service) "Climate-Ready Trees" research, scientists found that the "Red Push" Pistache was a drought-tolerant tree that thrived despite no watering once established. (See photo on the left.) With this information and the help of partner organizations, several "Red Push" were planted in a low-shade sports park in north Redlands, CA.

2021



2023

These pictures not only show the growth that has taken place over the past two years, but also point to the increase in canopy coverage that is to come with decades of growth.



Community involvement during tree education / planting in 2021.



Engage Partners (Community Groups, Cities, Libraries, Resource Conservation Districts, Water Districts, Dept. of Public Health, etc.)

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JOSHUA BASIN WATER DISTRICT
Proudly providing water from an ancient source...well into the future

Do you Have Space for a Shade Tree?

We're Giving Away Free Trees to the Public

Hi-Desert Water District

TPWD

Saturday, June 10, 2023
3:00 PM – 4:30 PM

Joshua Basin Water District
61750 Chollita Road
Joshua Tree, CA 92252

Mojave Water Agency

Limited Supplies

To ensure a tree, please pre-register using this link
<https://ucanr.edu/freetreesjoshuatree>

or QR Code:

CALIFORNIA CLIMATE ACTION CORPS

UNIVERSITY OF Redlands

Questions? Please contact UCCE Environmental Horticulturist Janet Hartin jshartin@ucanr.edu

The University of California Division of Agriculture & Natural Resources (UC ANR) is an equal opportunity provider

FREE SHADE TREES

Help "Green" your neighborhood

Saturday June 10, 2023
11:00 AM – 1:00 PM

First Presbyterian Church of San Bernardino
1900 N. D St. San Bernardino, CA 92405



<https://ucanr.edu/freetreessanbernardino>

For San Bernardino residents as there is a limited supply of trees

To ensure a tree, please pre-register using the link/QR code above.

Questions? Please contact UCCE Environmental Horticulturist Janet Hartin jshartin@ucanr.edu



Master Gardener
University of California Cooperative Extension

First Presbyterian Church of San Bernardino

CALIFORNIA CLIMATE ACTION CORPS

INLAND EMPIRE RESOURCE CONSERVATION DISTRICT

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

UNIVERSITY OF Redlands

The University of California Division of Agriculture & Natural Resources (UC ANR) is an equal opportunity provider
Graphics from 123rf.com profile_virtosmedia

Pre-Registration via An ANR Survey and On-Site if Trees Remain at the End

APPLICATION FOR A FREE TREE

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources



APPLICATION FOR A FREE TREE

Name (Last): _____ First: _____

Address: _____ City/Zip Code: _____

Email: _____@_____

1. Would you like a free shade tree for your landscape?

Yes _____ No _____

2. Do you own the property the tree will be planted on- or have permission from the land owner to plant a tree?

Yes _____ No _____

3. Do you have your own vehicle to bring your new shade tree home (e.g. small pick-up truck- SUV- van- sedan trunk etc.); We cannot deliver trees.

Yes _____ No _____

4. Do you agree to listen to a short talk today about how to plant and care for your new shade tree taught by the UC Cooperative Extension Master Gardener volunteers?

Yes _____ No _____

5. Do you agree to allow us to follow up with you in about 3 months to find out how your tree is doing and if you have any questions or concerns?

Yes _____ No _____

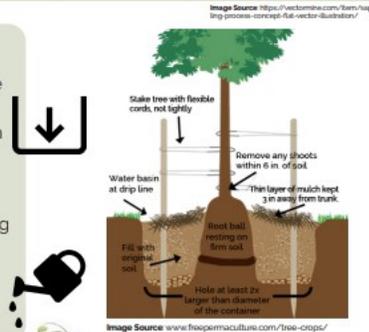
Education is a Key Element Since Less Than 40% of Trees Live Beyond 20 Years in Urban Settings

Tree Care Guidelines

Why Plant Trees? Trees cool urban heat islands; filter pollutants from air and water; absorb and store carbon dioxide; enhance biodiversity and provide habitat; provide sound barriers and windbreaks; beautify neighborhoods, and more!

Planting Your Tree!

- 2.5** » Dig the planting hole 2 - 2.5 times the width of the container the tree was in
- » Plant your tree at same depth it was in the container.
- » Add soil that was removed from the hole back into the hole (Do not add compost or organic matter to the planting hole).
- » Water your tree thoroughly and keep soil moist (like a wrung out sponge) the first season.



Long Term Tree Care

- » Prune trees correctly (never top them!)
- » Keep the tree trunk dry
- » Apply mulch on top of the soil, starting 6 inches away from the tree trunk and extending outward
- » Water your tree longer and less often than the first season (promotes a deep root system to support tree as it matures).
- » Avoid spraying pesticides unless absolutely necessary. (Identify problems first! Most issues are due to other issues and spraying will reduce populations of beneficial organisms and pollinators)
- » During drought and water restrictions, water deeply 2-3 times during summer with a hose to keep your tree alive



Still have tree questions? Contact the Master Gardener helpline with the QR code



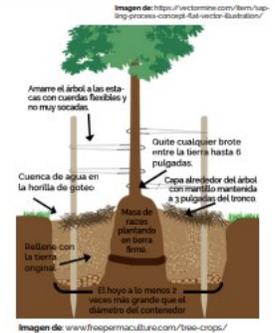
Image Source: <https://clipartix.com/tree-clipart-image-25088/>

El Cuidado de Árboles

¿Por qué son importantes los árboles? Los árboles refrescan el calor en las áreas (islas) urbanas; filtran los contaminantes del aire y el agua; almacenan dióxido de carbono; mejoran la biodiversidad y proveen un hábitat; proveen barreras de sonido y viento; embellecen los vecindarios, ¡y más!

Sembrando su árbol!

- 2.5** » Excave el hoyo de plantación 2 - 2.5 veces de ancho del contenedor en el que estaba el árbol
- » Plante su árbol a la misma profundidad que estaba en el contenedor.
- » Rellene el hoyo con la tierra que se quitó inicialmente (no agregue compost o materia orgánica al hoyo).
- » Riegue bien su árbol y mantenga la tierra húmeda en la primera temporada.



Cuidado a largo plazo

- » Poda los árboles correctamente, y no corte la rama central de crecimiento.
- » Mantenga el tronco seco
- » Aplique mantillo (mulch) alrededor del árbol, comenzando a 6 pulgadas del tronco y extendiéndose hacia afuera
- » Riegue su árbol por más tiempo y con menos frecuencia después de la primera temporada (promueve un sistema de raíces profundas para apoyar al árbol a medida que madura).
- » Evite de usar las pesticidas a menos que sea absolutamente necesario. (Identifique los problemas! La mayoría se deben a otras razones y la fumigación reducirá las poblaciones de organismos beneficiosos y polinizadores.)
- » Durante la sequía y las restricciones de agua, riegue profundamente 2 o 3 veces durante el verano con una manguera para mantener su árbol con vida



¿Todavía tiene preguntas? Usa la línea de ayuda de Master Gardener con el código QR



La División de Agricultura y Recursos Naturales de la Universidad de California (UC ANR) es un proveedor de igualdad de oportunidades.

Image Source: <https://clipartix.com/tree-clipart-image-25088/>



Muscoy Tree Give-Away

December 3, 2022



Koelreuteria bipinnata

(Chinese Flame Tree)



- Sunset climate zones: 8-24
- Deciduous
- Grows to 40' tall
- Tolerates pool soil
- Beautiful yellow flowers in late summer
- Seed capsules resemble Chinese lanterns

Chitalpa tashkentensis "Pink Dawn"



- Sunset zones 3-24
- Deciduous
- Grows to 35' tall
- Lovely lavender flowers in spring and summer
- Tolerates high pH

Email Tree Species Descriptions



San Bernardino Tree Giveaway

Bobby Vega Park

Saturday, April 22 10 am - 2 pm



Chaste Tree

(*Vitex agnus-castus* "Silver Spire")

- Sunset zones 4-24
- Deciduous
- Grows to 15' tall
- Lovely white flowers in spring and summer
- Tolerates high pH



Desert Willow

(*Chilopsis linearis*)

- Sunset climate zones: 3, 7 - 14, 18 - 23
- Deciduous
- Grows to 25-30' tall
- Tolerates poor soil
- Beautiful tubular flowers

Palo Verde

(*Parkinsonia x "Desert Museum"*)

- Sunset climate zones 8 - 14, 18 - 20
- Deciduous
- Fast growing to 20' tall
- Tolerates poor soil
- Beautiful yellow flowers



Have more questions about
tree planting, location, or care?



Contact the Master Gardener Helpline

- 22Trees4tomorrow@gmail.com
- (909) 387 - 2182

Climate-ready Landscape Trees Study

UC: Alison Berry, Jim Downer, Janet Hartin, Darren Haver
USFS: Greg McPherson, Natalie van Doorn, Erika Teach

- Measuring performance of select landscape tree species based on heat and drought resistance, CO₂ sequestration, soil tolerance, pest resistance, shade, biodiversity, rareness, longevity, etc.



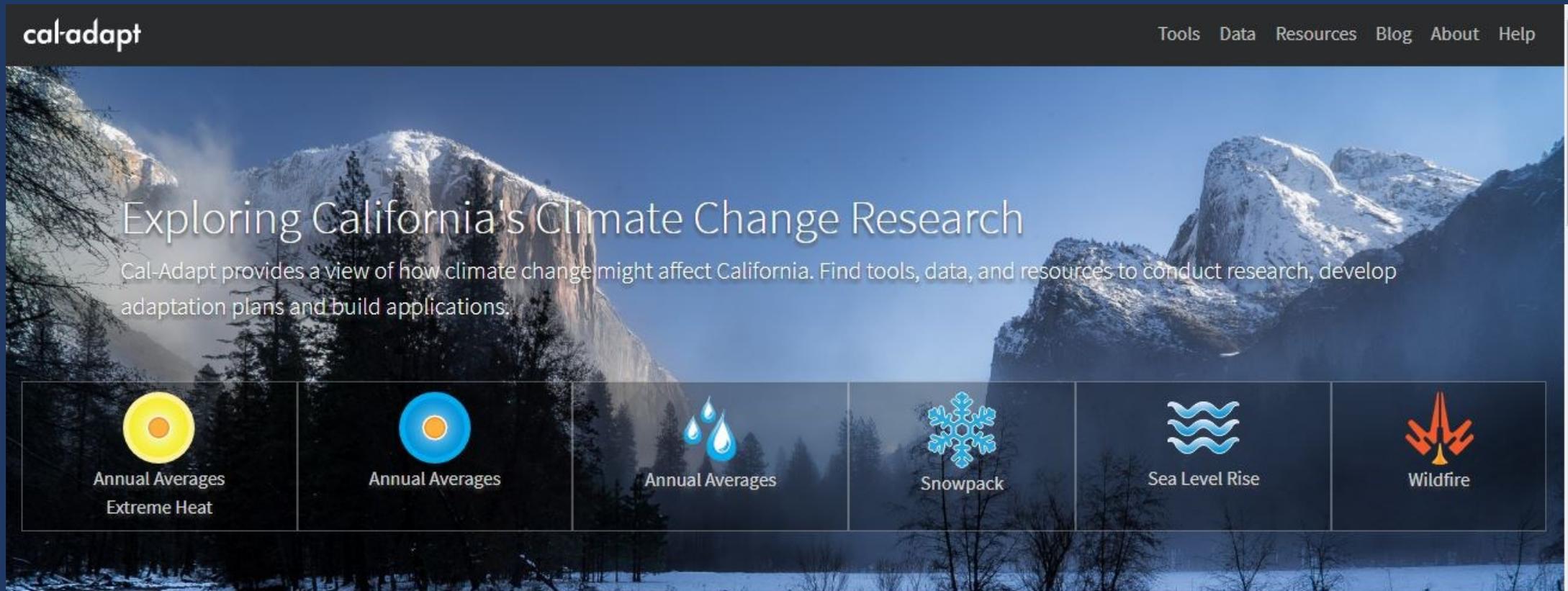
Step One

Evaluated Climate Trends & Exposures



<http://www.interaksyon.com/climate-change-causes-trees-in-eastern-us-to-shift-westward-study/>

CalAdapt Climate Model, Next 75 Years



cal-adapt

Tools Data Resources Blog About Help

Exploring California's Climate Change Research

Cal-Adapt provides a view of how climate change might affect California. Find tools, data, and resources to conduct research, develop adaptation plans and build applications.

- Annual Averages Extreme Heat
- Annual Averages
- Annual Averages
- Snowpack
- Sea Level Rise
- Wildfire

Precipitation & Wind: fewer storms but more precipitation during each event, stronger winds

<http://cal-adapt.org/tools/>

Trees Selected Based on a Vulnerability Matrix

Habitat	Physiology	Biological Interactions
Soil Moisture	Drought Tolerance	Invasiveness
Soil Texture and pH	Wind Tolerance	Current Pest and Disease Threats
Sunlight Exposure	Salt Tolerance	Emerging Pest and Disease Threats
	Cold Hardiness	

System for Assessing Vulnerability of Species (Bagne et al. 2011) and Pest Vulnerability Matrix (Laćan & McBride 2008)

Step Two

Identified Promising Species:

- Consulted other experts
- Compiled tree inventories
- Cross-referenced trees for rarity (<1% of typical Southern California tree canopy)





Tecate Cypress, Mesquite, Bubba Desert Willow



“Red Push Pistache, Palo Verde, Rosewood



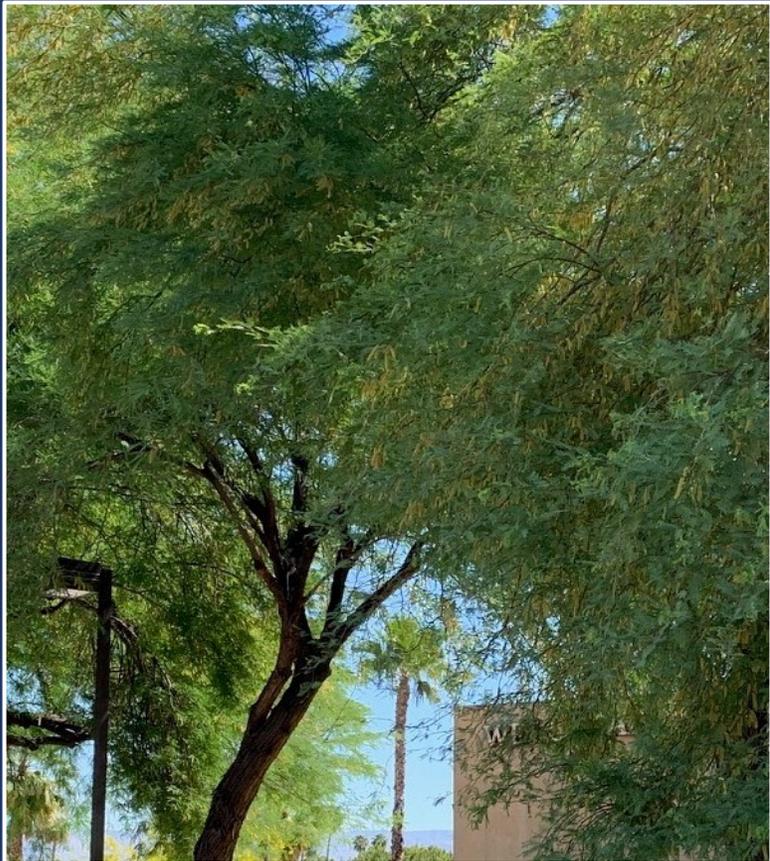
Red Push Pistache

Selected Finalists are Native to:

- Australia
- Southwest US
- Oklahoma
- Texas
- Western US
- Asia
- California
- Mexico



A Few Strong Performers to Date



'Maverick' Mesquite (*Prosopis glandulosa*)



- Native to Southwestern United States
- Thornless
- Drought/heat/pest tolerant
- Deciduous
- Grows to 35' x 35'
- Small yellow flowers in spring/summer
- Large pods



General Notes

Branches droop but resist breakage. This cultivar is known for being thornless and having foliage visually similar to the Peruvian Pepper Tree (*Schinus molle*).

Has fragrant Flower.

Native to Southwestern United States.

Family: *Fabaceae*

Additional Common Names

TEXAS MESQUITE, MAVERICK HONEY MESQUITE

Tree Characteristics

Spreading and requires ample growing space.

Rounded Shape.

Has Deciduous foliage.

Height: 25 - 35 feet.

Width: 25 - 35 feet.

Growth Rate: 12 to 36 Inches per Year.

Leaves Bipinnately Compound, Green, No Change, Deciduous.

Flowers Inconspicuous. Fragrant Yellow. Flowers in Spring or Summer. Has perfect flowers (male and female parts in each flower).

Brown Legume, Very Large (Over 3.00 inches), fruiting in Spring, Summer or Fall Edible and Wildlife use it.

Bark Grey, Smooth.

Shading Capacity Rated as Low to Moderately Low in Leaf.

Shading Capacity Rated as Low out of Leaf.

Tree Site Conditions & Constraints

Sunset Zones 10 - 13 and 18 - 24.

USDA Hardiness Zones 6 - 10.

Exposure Full Sun.

Wet to Dry Soil.

Drought tolerant.

Clay, Loam or Sand Texture.

Acidic to Alkaline Soil pH.

Health, Safety & Environmental Concerns

Root Damage Potential Rated as Low.

Attracts Birds and Mammals.

Wildlife use Fruit.

Special Uses & Values

Specimen or Shade Tree.

Bonsai.

Pistacia 'Red Push'
(A hybrid between *P. atlántica* x *P. integerrima*)



- Developed in Arizona
- Deciduous
- Grows quickly to 20' tall
- Drought/heat/cold/pest tolerant
- Reddish leaves emerge
- Inconspicuous flowers
- Fruitless

General Notes

A hybrid between *Pistacia atlantica* × *Pistacia integerrima*.

Hybrid developed in Arizona. Drought and cold tolerant. New leaves have distinctive red color when emerging.

Trees may be referred to as male or female.

Family: *Anacardiaceae*

Tree Characteristics

Erect or Spreading with a High Canopy.

Rounded or Spreading Shape.

Has Deciduous foliage.

Height: 25 - 40 feet.

Width: 20 - 40 feet.

Growth Rate: 12 to 24 Inches per Year.

Longevity Greater than 150 years.

Leaves Pinnately Compound Odd with Lanceolate Leaflets, Green, Red or Orange, Deciduous.

Flowers Inconspicuous. Flowers in Spring. Has either male or female reproductive parts (dioecious). Trees may be sold as male or female.

Fruitless.

Bark Dark Brown, Light Gray or Light Green, Furrowed or Scaly.

Shading Capacity Rated as Dense in Leaf.

Shading Capacity Rated as Moderate out of Leaf.

Cite this tree:

SelectTree. "*Pistacia* × 'Red Push' Tree Record." 1995-2021. Apr 21, 2021.

< <https://selecttree.calpoly.edu/tree-detail/pistacia-x-red-push> >

This tree is not part of the [SelectTree Nursery Connection](#). If you would like to see this tree listed, or know of a nursery that sells it,

Tree Site Conditions & Constraints

Sunset Zones 8 - 24.

USDA Hardiness Zones 7 - 9.

Exposure Full Sun.

Moist to Dry Soil.

Drought tolerant.

Clay, Loam or Sand Texture.

Slightly Acidic to Highly Alkaline Soil pH.

Seaside Tolerance is Not Suited.

Pests & Disease Information

Resistant to Verticillium.

Health, Safety & Environmental Concerns

Branch Strength Rated as Strong.

Root Damage Potential Rated as Low.

Special Uses & Values

Street Tree, Park Tree, Screen.

Desert Willow
'Bubba'
(*Chilopsis linearis*)





General Notes

 Utility friendly tree.

Desert Willow is an unusual small flowering desert accent tree, especially useful in riparian or native garden settings. It is usually multi-trunked or low-branching. It blooms best in full sun, becoming taller and less full in half shade. Desert Willow bark is smooth when young but develops rough fissures as it ages. White lenticels are noticeable on young bark or new growth. It is very drought tolerant, with only occasional deep watering to the roots. It is susceptible to root rot if drainage is poor.

Has fragrant Flower.

Native to California, Texas and Mexico.

Family: *Bignoniaceae*

Additional Common Names

BUBBA DESERT WILLOW, DESERT CATALPA BUBBA

Tree Characteristics

Spreading Low or High Canopy.

Rounded or Spreading Shape.

Has Deciduous foliage.

Height: 15 - 20 feet.

Width: 10 - 15 feet.

Growth Rate: 24 to 36 Inches per Year.

Longevity 40 to 150 years.

Leaves Linear, Bluish Green or Silver or Gray Green, Golden or Yellow or Orange, Deciduous.

Tree Site Conditions & Constraints

Sunset Zones 7 - 14 and 18 - 23.

USDA Hardiness Zones 8 - 9.

Exposure Full Sun to Partial Shade.

Moist to Dry Soil.

Drought tolerant.

Loam or Sand Texture.

Neutral to Highly Alkaline Soil pH.

Salinity Tolerance is Good Inland.

Seaside Tolerance is Not Suited.

Pests & Disease Information

Resistant to Texas Root Rot. Susceptible to Root Rot.

Health, Safety & Environmental Concerns

Branch Strength Rated as Medium.

Root Damage Potential Rated as Low.

Allergy Health Hazard.

Biogenic Emissions considered Moderate.

Desirable Wildlife Plant.

Attracts Birds.

Wildlife use Fruit.

Special Uses & Values

Screen.

Indian Rosewood (*Dalbergia sissoo*)

Left: 'Bubba' Desert
Willow

Right (Indian Rosewood)



INDIAN ROSEWOOD

Dalbergia sissoo

FAMILY Fabaceae

[See all *Dalbergia*](#)

SYNONYMS

Amerimnon sissoo

ADDITIONAL COMMON NAMES

SHISHAM

SISSOO TREE



Photos taken at Boyce Thompson Arboretum, Superior, AZ; UC Davis, Davis, CA; Arizona State University, Tempe, AZ; Phoenix, AZ; Indio, CA; and Los

GENERAL INFO

Useful for erosion control as it has a wide spreading root system. It thrives in lawn settings, as well as hot, reflected heat, granite areas. Magnesium deficiency is common. Branches droop and are susceptible to breakage.

Native range: Indian Subcontinent

Horticultural use: Shade Tree or Park Tree or Street Tree

TREE CHARACTERISTICS

Tree shape: Rounded or Vase

Foliage type: Deciduous - Partly Deciduous

Maximum tree height: 60 feet

Canopy width: 30-40 feet

Growth rate: ~24-36 in/year

Leaf arrangement and form: Alternate, Pinnately Compound

Leaf/leaflet shape: Oval

Leaf color: Green

Flowers: Inconspicuous, Fragrant

Flower color: White or Yellow.

Flower type: Has male and female reproductive parts in each flower (perfect)

Flowering time: Spring

Fruit: Brown Legume

Fruiting time: Fall or Summer

Bark: Dark Brown or Light Green, Furrowed, Rough

Litter: Dry Fruit, Flowers

SITE CONDITIONS

Planting area: Greater than 10'

Water use: Low

Sunset zones: 13, 19, 21 - 24

USDA zones: 9, 10, 11

Sun exposure: Partial Shade to Full Sun

Soil texture: Loam or Sand or Clay

Soil pH: Acidic to Acidic

Salt spray tolerance: High

CONSIDERATIONS

Branch strength: Medium Weak

Root damage potential: Moderate

Potential health issues: No known hazards

Wildlife interactions: Tree is deer resistant

Powerline friendly: No

Netleaf Hackberry (*Celtis reticulata*)

- CA Native
- Deciduous
- Grows 35' x 30'
- Attracts many species of birds
- Inconspicuous flowers





Photo Locations: Desert Botanical Garden - Phoenix, AZ, UC Davis - Davis, CA, Tucson, AZ, Rancho Santa Ana Botanic Gardens - Claremont, CA, Regional Parks Botanic Garden, Tilden Regional Park - Berkeley, CA and Arnold Arboretum - Boston, MA

[See all Celtis.](#)

General Notes

Deciduous tree with small red berries. Found in riparian areas of the Southwest. Attracts birds.

Native to California.

Family: *Cannabaceae*

Previously listed in the *Ulmaceae* family.

Synonyms

Celtis laevigata subsp. *reticulata*

Celtis reticulata

Additional Common Names

NETLEAF HACKBERRY, WESTERN HACKBERRY

Tree Characteristics

Spreading or Weeping with a Low Canopy.

Rounded or Spreading Shape.

Has Deciduous foliage.

Height: 25 - 35 feet.

Width: 25 - 30 feet.

Tree Site Conditions & Constraints

Sunset Zones 1 - 3 and 10 - 13.

USDA Hardiness Zones 3 - 9.

Exposure Full Sun to Partial Shade.

Moist to Dry Soil.

Drought tolerant.

Loam or Sand Texture.

Neutral to Highly Alkaline Soil pH.

Seaside Tolerance is Not Suited.

Pests & Disease Information

Susceptible to Aphids and Insect Galls.

Health, Safety & Environmental Concerns

Branch Strength Rated as Medium.

Root Damage Potential Rated as Low.

Allergy Health Hazard.

Desirable Wildlife Plant.

Updated Zone Recommendations (Hackberry)

SITE CONDITIONS

Planting area: 4' to 7'

SelectTree Water Use Rating: Low

Sunset zones: 1 - 3, 10 - 13, 18 - 19

USDA zones: 3, 4, 5, 6, 7, 8, 9

Sun exposure: 2 to 3

Soil texture: Loam or Sand

Soil pH: 4 to 7

Salt spray tolerance: Low

CONSIDERATIONS

Branch strength: Medium

Root damage potential: Low

Potential health issues: Allergy

Wildlife interactions: Tree is deer resistant and attracts birds

Disease and pest susceptibility: null

Powerline friendly: No

TECATE CYPRESS

Hesperocyparis forbesii

FAMILY Cupressaceae

See all *Hesperocyparis*

SYNONYMS

Cupressus forbesii

Cupressus guadalupensis

ADDITIONAL COMMON NAMES



GENERAL INFO

Excessive watering may cause rapid top growth, resulting in wind-thrown trees.

Native range: California

Horticultural use: Screen or Hedged

TREE CHARACTERISTICS

Tree shape: Columnar or Rounded

Foliage type: Evergreen

Maximum tree height: 25 feet

Canopy width: 20 feet

Growth rate: ~36-127 in/year

Leaf arrangement and form: Whorled, Simple

Leaf/leaflet shape: Scale-like

Leaf color: Green

Flowers: Fragrant

Flower type: Has separate male and female reproductive parts on the same tree (monoecious)

Fruit: Brown, Gray or Mostly Green Cone

Fruiting time: Fall

Fruit value: Wildlife use it

Bark: Dark Brown or Red Brown, Exfoliating, Scaly, Smooth

Litter: Dry Fruit

SITE CONDITIONS

Planting area: 5' to 10'

Water use: Low

Sunset zones: 8 - 14, 18 - 20

USDA zones: 7, 8, 9

Sun exposure: Full Sun to Full Sun

Soil texture: Loam or Sand or Clay

Soil pH: Very Acidic to Very Alkaline

Salt spray tolerance: High

CONSIDERATIONS

Branch strength: Strong

Root damage potential: Moderate

Potential health issues: No known hazards

Biogenic emissions: Moderate

Wildlife interactions: Tree is deer resistant and attracts birds

Powerline friendly: Yes

Escarpment Live Oak (*Quercus fusiformis*)



GENERAL INFO

Quercus fusiformis is in the White Oak section of the genus *Quercus*. This semi-evergreen tree is visually similar to *Quercus virginiana* (and used to be considered a variety of *Q. virginiana*) but is more drought, cold, and heat tolerant.

Native range: South-Central United States, Mexico

Horticultural use: Specimen or Shade Tree or Wildlife Tree or Street Tree

TREE CHARACTERISTICS

Tree shape: Rounded

Foliage type: Partly Deciduous - Evergreen

Maximum tree height: 50 feet

Canopy width: 20-40 feet

Growth rate: ~12 in/year

Leaf arrangement and form: Alternate, Simple

Leaf/leaflet shape: Oval

Leaf color: Dark Green

Flowers: Inconspicuous

Flower type: Has separate male and female reproductive parts on the same tree (monoecious)

Flowering time: Spring

Fruit: Brown Acorn

Fruiting time: Fall or Winter

Bark: Black or Dark Brown, Blocky, Furrowed, Scaly

Litter: Dry Fruit

SITE CONDITIONS

Planting area: Greater than 10'

Water use: Medium

Sunset zones: 3, 10 - 13

USDA zones: 6, 7, 8, 9, 10

Sun exposure: Partial Shade to Full Sun

Soil texture: Loam or Sand or Clay

Soil pH: Acidic to Alkaline

Soil salinity tolerance: Inland Good, Coastal Good, Coastal Moderate

Salt spray tolerance: Moderate

CONSIDERATIONS

Branch strength: Strong

Root damage potential: Moderate

Potential health issues: Allergy, Poisonous

Biogenic emissions: High

Wildlife interactions: Tree is deer resistant and attracts birds, squirrels

Disease and pest susceptibility: Armillaria, Phytophthora, Live Oak Wilt, Root Rot and Insect Galls

Disease and pest resistance: Verticillium

Powerline friendly: No

Mulga (*Acacia aneura*)



GENERAL INFO

Fine patio tree for hot, dry areas. Hardy to about 15 degrees F.

Native range: Western Australian Mulga shrublands

Horticultural use: Screen

TREE CHARACTERISTICS

Tree shape: Rounded

Foliage type: Evergreen

Maximum tree height: 20 feet

Canopy width: 15-20 feet

Growth rate: ~24 in/year

Leaf arrangement and form: Alternate, Simple

Leaf/leaflet shape: Linear

Leaf color: Bluish Green or Silver or Gray Green

Flowers: Showy

Flower color: Yellow.

Flower type: Has male and female reproductive parts in each flower (perfect)

Flowering time: Spring

Fruit: Brown Legume

Fruiting time: Fall, Winter or Summer

Bark: Dark Brown or Light Green, Fissured

Litter: Dry Fruit

SITE CONDITIONS

Planting area: 2' to 5'

Water use: Low

Sunset zones: 8 - 9, 12 - 24

Sun exposure: Partial Shade to Full Sun

Soil texture: Loam or Sand or Clay

Soil pH: Slightly Acidic to Very Alkaline

Salt spray tolerance: Moderate

CONSIDERATIONS

Branch strength: Medium

Root damage potential: Low

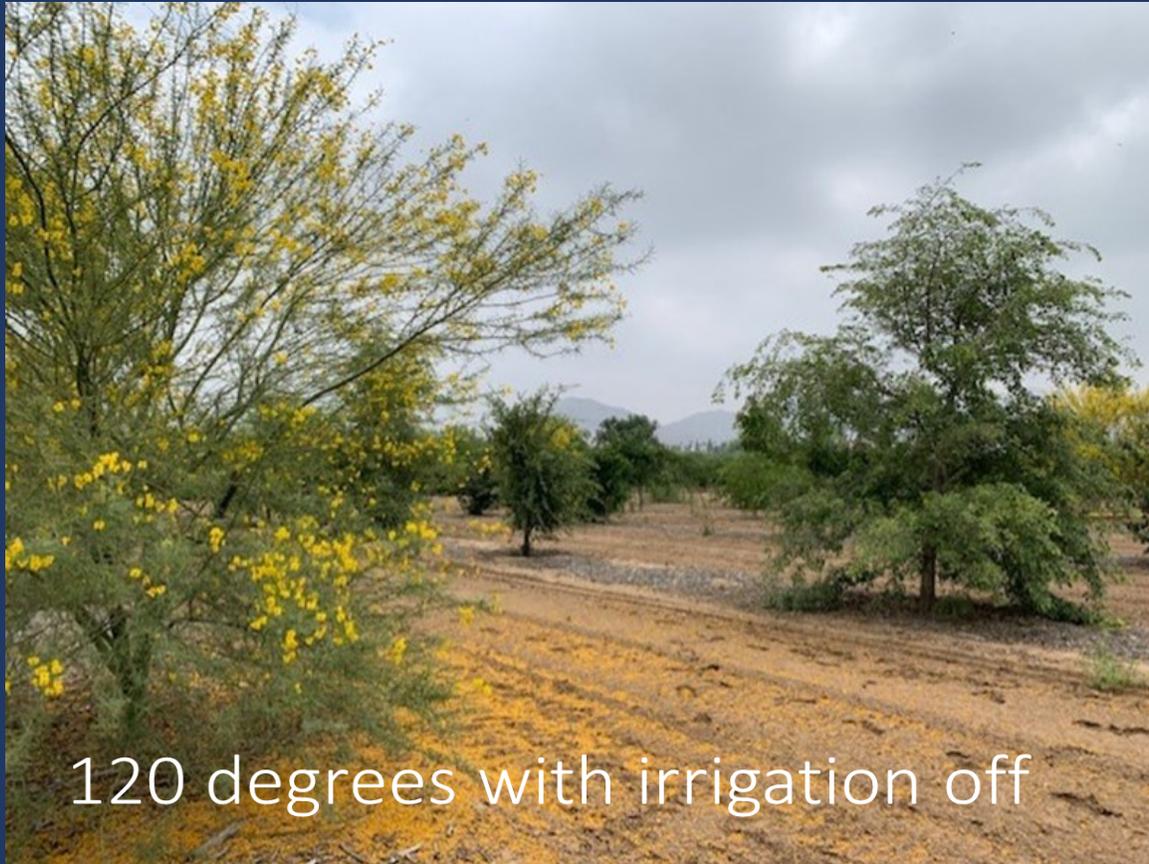
Potential health issues: Allergy

Wildlife interactions: Tree is deer resistant and attracts birds

Disease and pest susceptibility: Root Rot and Invasive Shot Hole Borer

Powerline friendly: Yes

'Desert Museum' Palo Verde



- Drought/heat tolerant
- Native to SW USA
- Deciduous
- Thornless
- Grows quickly to 15' x 25'
- Prolific yellow flowers in spring/summer
- **Susceptible to Shot-hole borer**

General Notes



Utility friendly tree.

This hybrid is a three-way cross with *P. aculeata*, *P. microphyllum*, and *P. floridum* combining the best characteristics of all three. Developed by Mark Dimmitt at the Arizona Sonora Desert Museum, this tree has rigorous growth and a sturdy, upright branching habit. This tree provides a brilliant and rather conspicuous bloom to announce the arrival of spring.

Has fragrant Flower.

Native to A hybrid. Parents are native of the Sonoran and Chihuahan Deserts of the southwestern United States .

Family: *Fabaceae*

Previously listed in the *Caesalpinaceae* family.

Tree Characteristics

Spreading or Weeping with a Low Canopy.

Rounded, Umbrella or Vase Shape.

Has Deciduous foliage.

Height: 15 - 20 feet.

Width: 20 - 25 feet.

Tree Site Conditions & Constraints

Sunset Zones 8 - 14 and 18 - 20.

USDA Hardiness Zones 6 - 9.

Exposure Full Sun.

Moist to Dry Soil.

Drought tolerant.

Clay, Loam or Sand Texture.

Neutral to Highly Alkaline Soil pH.

Salinity Tolerance is Good to Moderate Inland.

Seaside Tolerance is Good in Mild Zone.

Pests & Disease Information

Resistant to Texas Root Rot. Susceptible to Invasive Shot Hole Borer, Eriophyid Mite.

Health, Safety & Environmental Concerns

Branch Strength Rated as Medium.

Root Damage Potential Rated as Low.

None Known Health Hazard.

Biogenic Emissions considered Moderate

Useful Websites With Searchable Criteria

- Urban Forest Ecosystem/Cal Poly: <https://selectree.calpoly.edu>
- California Native Plant Society: <http://www.calscape.org>
- WUCOLS IV (Water Use Classification of Landscape Species):
<http://ucanr.edu/sites/WUCOLS>



Sunset Zones (Southern CA)

- 24: Coast
- 22/23: Near Coast
- 18 & 19: Inland
- 13: Coachella Valley
- 11: High Desert

[Search by Name](#)[Search Trees by Characteristics](#)[Search Help](#)[About SelecTree](#)[Right Tree Right Place](#)[Utility Precautions](#)[Browse securely](#)

SelecTree: Right Tree Right Place

Trees & shrubs are an important part of the environment and the communities that we live in. Use the health and safety links below to help avoid future conflicts with your valued plantings.

[Utility Precautions](#)[Hazardous Trees](#)[Fire Safety](#)[Tree Maintenance](#)[Root Damage](#)[Allergy & Toxicity](#)[Invasive Plants](#)[Biogenic Emissions](#)

[Utility Precautions](#)

Planting or pruning trees near utility lines requires careful consideration. Look for the utility friendly icon  in search results lists. See [Utility Precautions](#) for more information.



Quercus stellata

Branches droop but resist breakage...

Photo by C. Stubler, W. Mark and J. Reimer



Search Trees By Name

Trees can be searched by their common or scientific name.

Enter a tree name...



CAL POLY

SelectTree

A TREE SELECTION GUIDE

SEARCH PACIFIC ISLANDS
Click here to search trees in the Pacific Islands



SEARCH CHARACTERISTICS
Search by height, flower color, and more.



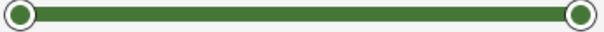
SEARCH HELP
Find more information to help with your search.

SEARCH BY CHARACTERISTICS

TREE CHARACTERISTICS

MAXIMUM TREE HEIGHT

0ft 100ft



0 25 50 75 100+

IS CA NATIVE?

 Yes

HAS FALL COLOR?

 Yes

POWERLINE FRIENDLY?

 Yes

TREE SHAPE

LEAF FORM

FOLIAGE TYPE

LEAF ARRANGEMENT

SEARCH TERM

TYPE IN A TERM TO SEARCH

SITE CONDITIONS

USDA HARDINESS ZONE

SUNSET CLIMATE ZONE

AVAILABLE PLANTING AREA

DEER RESISTANT

 Yes

SALINITY TOLERANCE

 Yes

UTILITY PRECAUTIONS

 Medium Zone Low Zones

SELECT TREE WATER USE RATING **x**

 Very Low Low Medium High

SUN EXPOSURE

 Sun Partial Shade Full Shade

CLEAR ALL FILTERS

SEARCH

298 TREES

REFINE FILTER

Scientific Name A-Z

30

50

100

results per page

1 2 3 4 ... > >>

SPANISH FIR

Abies pinsapo



MULGA

Acacia aneura



BAILEY ACACIA

Acacia baileyana



PURPLE-LEAF ACACIA

Acacia baileyana 'Purpurea'



SNOWY RIVER WATTLE

Acacia boormanii



WHITETHORN ACACIA

Acacia constricta



BLUE BUSH ACACIA

Acacia covenyi



LEATHER-LEAF ACACIA

Acacia craspedocarpa



KNIFE ACACIA

Acacia cultriformis



Example Trees from Search

WINDMILL PALM

Trachycarpus fortunei



ESPINO

Vachellia caven



SWEET ACACIA

Vachellia farnesiana



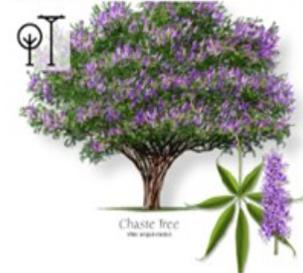
ARIZONA ROSEWOOD

Vauquelinia californica



CHASTE TREE

Vitex agnus-castus



CARACUS WIGANDIA

Wigandia urens



GRASS TREE

Xanthorrhoea preissii



SHINY XYLOSMA

Xylosma congesta



JOSHUA TREE

Yucca brevifolia



WINDMILL PALM

Trachycarpus fortunei



ESPINO

Vachellia caven



SWEET ACACIA

Vachellia farnesiana



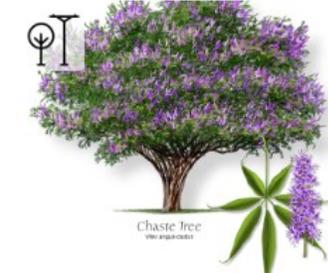
ARIZONA ROSEWOOD

Vauquelinia californica



CHASTE TREE

Vitex agnus-castus



CARACUS WIGANDIA

Wigandia urens



GRASS TREE

Xanthorrhoea preissii



SHINY XYLOSMA

Xylosma congesta



JOSHUA TREE

Yucca brevifolia



BAILEY ACACIA

Acacia baileyana

FAMILY Fabaceae

[See all *Acacia*](#)

SYNONYMS

ADDITIONAL COMMON NAMES

COOTAMUNDRA WATTLE

GOLDEN MIMOSA TREE





GENERAL INFO

Bailey acacia grows best in light, well-drained, fertile soil. Acacia is an attractive low water use shrub or small tree, which has a showy spring flowering quality, as well as its distinctive, evergreen, feathery foliage. Its roots may be invasive in residential garden settings, but is effective as a soil stabilizer. It may require regularly scheduled light top-trimming (but not necessarily shearing) of vigorous top shoots to maintain its height below 25.

Native range: New South Wales, Australia

Horticultural use: Screen

TREE CHARACTERISTICS

Tree shape: Rounded

Foliage type: Evergreen

Maximum tree height: 30 feet

Canopy width: 20-40 feet

Growth rate: ~36-127 in/year

Leaf arrangement and form: Alternate, Bipinnately Compound

Leaf/leaflet shape: Linear

Leaf color: Bluish Green or Silver or Gray Green

Flowers: Showy, Fragrant

Flower color: Yellow.

Flowering time: Winter or Spring

Fruit: Large Brown Legume

Fruiting time: Fall, Winter or Summer

Bark: Dark Gray or Light Gray, Furrowed, Smooth

Litter: Dry Fruit



SITE CONDITIONS

Planting area: 5' to 10'

SelecTree Water Use Rating: Low

Sunset zones: 7 - 9, 13 - 24

USDA zones: 8, 9, 10

Sun exposure: Partial Shade to Full Sun

Soil texture: Loam or Sand or Clay

Soil pH: Slightly Acidic to Very Alkaline

Soil salinity tolerance: Good Inland

Salt spray tolerance: Moderate

CONSIDERATIONS

Branch strength: Weak

Root damage potential: Moderate

Potential health issues: Allergy

Biogenic emissions: Moderate

Wildlife interactions: Tree is deer resistant and attracts bees, birds

Disease and pest susceptibility: Phytophthora and Invasive Shot Hole Borer, Thrip

Powerline friendly: No

CITE THIS TREE

SelectTree. UFEI. "Acacia baileyana Tree Record." 1995-2022. Cal Poly State University, San Luis Obispo. Accessed on Jul 20, 2022.

< <https://selectree.calpoly.edu/tree-detail/16> >

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A TREE SELECTION GUIDE



SEARCH PACIFIC ISLANDS

Click here to search trees in the Pacific Islands



SEARCH CHARACTERISTICS

Search by height, flower color, and more.



SEARCH HELP

Find more information to help with your search.

CHASTE TREE

Vitex agnus-castus

FAMILY Verbenaceae

See all *Vitex*

SYNONYMS

ADDITIONAL COMMON NAMES



Enter a tree name...



SEARCH PACIFIC ISLANDS

Click here to search trees in the Pacific Islands



SEARCH CHARACTERISTICS

Search by height, flower color, and more.



SEARCH HELP

Find more information to help with your search.

PINK DAWN CHITALPA

× *Chitalpa tashkentensis* 'Pink Dawn'

FAMILY Bignoniaceae

See all *Chitalpa*

SYNONYMS

ADDITIONAL COMMON NAMES

CHITALPA

PINK DAWN



Photos taken at LA County Arboretum - Arcadia, CA and San Luis Obispo, CA
by M. Ritter, J. Reimer



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A TREE SELECTION GUIDE

Enter a tree name...



SEARCH PACIFIC ISLANDS

Click here to search trees in the Pacific Islands



SEARCH CHARACTERISTICS

Search by height, flower color, and more.



SEARCH HELP

Find more information to help with your search.

SEARCH BY CHARACTERISTICS

TREE CHARACTERISTICS

MAXIMUM TREE HEIGHT ✕



TREE SHAPE

Select... | v

FOLIAGE TYPE

Select... | v

IS CA NATIVE?

Yes

HAS FALL COLOR?

Yes

POWERLINE FRIENDLY?

Yes

LEAF FORM

Select... | v

LEAF ARRANGEMENT

Select... | v

FLOWERS & FRUIT

FLOWER COLOR

Select... | v

FRUIT TYPE

Select... | v

HAS FRAGRANCE?

Yes

SelectTree

A TREE SELECTION GUIDE


[SEARCH PACIFIC ISLANDS](#)

[SEARCH CHARACTERISTICS](#)

[SEARCH TREE LISTS](#)

[SEARCH HELP](#)

298 TREES

results per page

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SPANISH FIR
Abies pinsapo



MULGA
Acacia aneura



BAILEY ACACIA
Acacia baileyana



PURPLE-LEAF ACACIA
Acacia baileyana 'Purpurea'



SNOWY RIVER WATTLE
Acacia boormanii



WHITETHORN ACACIA
Acacia constricta



BLUE BUSH ACACIA
Acacia covenyi

LEATHER-LEAF ACACIA
Acacia craspedocarpa

KNIFE ACACIA
Acacia cultriformis

WUCOLS IV (Water Use Classification of Landscape Species): <http://ucanr.edu/sites/WUCOLS>

WUCOLS IV

Water Use Classification of Landscape Species

Home Page

- User Manual
- Plant Search Instructions
- Plant Search Database
- Download WUCOLS IV Plant List
- Download WUCOLS IV User Manual
- Water Requirements for Turfgrasses
- Partners
- Acknowledgements

Home Page

GETTING STARTED

If you are using the WUCOLS list for the first time, it is essential that you read the *User Manual*. The manual contains very important information regarding the evaluation process, categories of water needs, plant types, and climatic regions. It is necessary to know this information to use WUCOLS evaluations and the plant search tool appropriately. To access the *User Manual*, click on the tab (on left) and view specific topics.

Water conservation is an essential consideration in the design and management of California landscapes. Effective strategies that increase water use efficiency must be identified and implemented. One key strategy to increase efficiency is matching water supply to plant needs. By supplying only the amount of water needed to maintain landscape health and appearance, unnecessary applications that exceed plant needs can be avoided. Doing so, however, requires some knowledge of plant water needs.

WUCOLS IV provides evaluations of the irrigation water needs for over 2,500 taxa (taxonomic plant groups) used in California



WUCOLS IV

Classification of Landscape Species

- South Inland Valley -

- Alhambra
- Arcadia
- Azusa
- Baldwin Park
- Chino
- Chino Hills
- Claremont
- Colton
- Corona
- Covina
- Diamond Bar
- Duarte
- El Monte
- Escondido
- Fontana
- Glendora
- Hemet
- La Canada-Flintridge
- Lake Elsinore
- Loma Linda
- Menifee
- Monrovia
- Montclair
- Monterey Park
- Moreno Valley
- Murrieta
- Norco
- Ontario

Submit

Submit

Submit

Submit

Submit

Submit

WUCOLS IV

Classification of Landscape Species

Duarte
El Monte
Escondido
Fontana
Glendora
Hemet
La Canada-Flintridge
Lake Elsinore
Loma Linda
Menifee
Monrovia
Montclair
Monterey Park
Moreno Valley
Murrieta
Norco
Ontario
Pasadena
Perris
Pomona
Ramona
Rancho Cucamonga
Rancho Santa Fe
Redlands
Rialto
Riverside
Rosemead
Rubidoux
San Bernardino

Submit

Submit

Submit

Submit

Submit

Submit

Wucols DB

Home • Wucols DB

🔍 Search

★ Favorites (0)

City/Region

Start typing to search

Region 4: Riverside

or  Select a city from the map

Plant Name

botanical or common name

Water Use

Select all/ Deselect all

Very Low

Low

Moderate

Matching Plants: 163

1 2 3 4

Photo

Name



Adenostoma sparsifolium
red shanks/ribbonwood



Arctostaphylos glauca
big berry manzanita

Riverside Search:
Very Low or Low
Water Use
Ratings

California Native Plant Society
<http://www.calscape.org/>

Calscape Search: Drought Resistant Trees Native to CA

CALIFORNIA NATIVE PLANT SOCIETY
Calscape
Restore Nature One Garden at a Time

Search for California native plants by name

Advanced Search Results [Options](#) [Edit Search](#)

82 Plants. Native to: **California**. Type: **Tree**. Water Requirement: **Extremely Low, Very Low, Low**.

1  Coast Live Oak Quercus agrifolia	2  Blue Oak Quercus douglasii	3  Black Oak Quercus kelloggii	4  Catalina Cherry Prunus ilicifolia ssp. lyonii	5  Blue Elderberry Sambucus mexicana
7  Sierra Redwood Sequoiadendron giganteum	8  Valley Oak Quercus lobata	9  Pacific Madrone Arbutus menziesii	10  Scrub Oak Quercus berberidifolia	11  Nuttall's Scrub Oak Quercus dumosa
13  Foothill Pine Pinus sabiniana	14  Torrey Pine Pinus torreyana	15  Hollyleaf Cherry Prunus ilicifolia ssp. ilicifolia	16  Coast Redwood Sequoia sempervirens	17  Western Red Cedar Thuja plicata
19  Leather Oak Quercus durata	20  Santa Cruz Island Ironwood Lyonothamnus floribundus ssp. aspleniifolius	21  Incense Cedar Calocedrus decurrens	22  California Buckeye Aesculus californica	23  California Laurel Umbellularia californica

Calscape Search: Drought Resistant Trees Native to Riverside



CALIFORNIA NATIVE PLANT SOCIETY
Calscape
Restore Nature One Garden at a Time

Search for California native plants by name

ADVANCED SEARCH

HOME > ADVANCED SEARCH > SEARCH RESULTS

Advanced Search Results

Options

Edit Search

7 Plants. Native to: **Riverside**. Type: **Tree**. Water Requirement: **Extremely Low, Very Low, Low**.

-  **Blue Elderberry**
Sambucus mexicana
-  **Nuttall's Scrub Oak**
Quercus dumosa
-  **Hollyleaf Cherry**
Prunus ilicifolia ssp. ilicifolia
-  **Hollyleaf Cherry**
Prunus ilicifolia
-  **Black Elderberry**
Sambucus nigra
-  **Northern California Black Walnut**
Juglans hindsii
-  **Velvet Ash**
Fraxinus velutina

Calscape Search: Drought Resistant Trees Native to Indio



Search for California native plants by name

ADVANCED SEARCH

HOME > ADVANCED SEARCH > SEARCH RESULTS

Advanced Search Results

Options

Edit Search

6 Plants. Native to: indio. Type: **Tree**. Water Requirement: **Extremely Low, Very Low, Low**.



Ease of Care

- Very Easy
- Moderately Easy
- Fairly Difficult
- Very Difficult

Common Uses

- Bank Stabilization
- Bee Gardens
- Bird Gardens
- Bogs and Ponds
- Butterfly Gardens
- Butterfly Host Plants
- Deer Resistant
- Groundcovers
- Hedges
- Hummingbird Gardens

Availability in Nurseries

- Commonly Available
- Sometimes Available
- Rarely Available
- Never or Almost Never Available
- Available Through Seed Stores

Nurseries

- 3 Rivers Blooms
- Ackerman Native Plant Nursery
- Alladin Nursery & Gift Shop
- Almaden Valley Nursery
- Alta Vista Nursery
- Annie's Annuals and Perennials
- Antelope Valley Resource Conservation Nursery
- Arboretum & Gardens' Nursery at Turtle Bay Exploration Park

Fragrance

- Fragrant - Pleasant
- Fragrant - Unpleasant
- None
- Slight

Flower Color

- Black
- Blue
- Brown
- Cream
- Green
- Lavender
- Orange
- Pink
- Purple
- Red
- White
- Yellow

Flowering Season

- Spring
- Summer
- Fall
- Winter

Height

- Feet Inches

Genus

<https://www.cal-ipc.org/wp-content/uploads/2017/11/Dont-Plant-a-Pest-Trees-of-CA.pdf> (CA Invasive Plant Council)

Don't Plant

blue gum eucalyptus

Eucalyptus globulus

Found along the coast from Humboldt to San Diego and in the Central Valley. Most invasive in coastal locations. Easily invades native plant communities, causing declines in native plant and animal populations. Extremely flammable.



Russian olive

Elaeagnus angustifolia

Found throughout California. Able to spread long distances with the help of birds and mammals. Invades river and stream corridors, pushing out native willows and cottonwoods. Reduces water levels. Provides poor wildlife habitat. Serious invader in other western states.



Mexican fan palm

Washingtonia robusta

A problem in southern California, where this palm can be prolific. Crowds out native species in wetlands, canyons, and coastal lagoons.



Don't Plant

saltcedar

Tamarix species

A serious riparian invader throughout California and southwestern states. Uses excessive amounts of water, salinates soil, changes water courses, diminishes wildlife habitat, and increases fire hazard. Not commonly sold, but still occasionally available.



Chinese tallow tree

Sapium sebiferum

A huge problem in southern states, this species has recently been found in California wildlands. Grows and spreads rapidly, pushing out native plants.



myoporum

Myoporum laetum

Invades along the coast from Sonoma County to San Diego. Forms dense stands with no other vegetation. Can cover large areas. Spread by birds. Leaves and fruits are toxic to wildlife and livestock. Burns easily. Doesn't typically spread in interior areas.



Don't Plant

Brazilian peppertree

Schinus terebinthifolius

A serious problem in southern California. Less of a problem in the San Francisco Bay area and Central Valley, but caution should be used if planting near wildlands. Creates dense stands which shade out other vegetation within a few years of introduction.



scarlet wisteria

Sesbania punicea

New to California, spreading along the American River in central California. Also found in the Delta and northern California. A serious problem in South Africa and Florida. Grows and spreads rapidly along river and stream corridors, pushing out native vegetation and wildlife. Seeds



Melaleuca quinquenervia, the Australian paperbark tree, was introduced to Florida from Australia for landscaping purposes. Today the tree covers more than 450,000 acres of south Florida natural areas, and is one of the biggest threats to the Florida Everglades.

Caution

The trees in the Caution section have been observed escaping into California wildlands, but it remains unclear whether they cause serious damage. You may want to avoid them if your property is located near natural areas.

California peppertree *Schinus molle*

Also called Peruvian peppertree, this South American plant is not native to California, despite its common name. Found in southern California, Sierra Foothills, and the Central Valley. Seeds spread by birds. Invasive in stream and riverside habitat.



© 1999 John Randall, Ph.D.



B. Richardson

black locust *Robinia pseudoacacia*

Widespread in northern California, including Tahoe National Forest, although mostly present in small patches. Spreads by seeds and root sprouts. Seeds, leaves, and bark are toxic to humans and wildlife.

Canary Island date palm *Phoenix canariensis*

Can spread quickly in southern California wetlands and riverside habitats. Seeds spread by birds.



Courtesy NZ Palm www.nzpalms.co.nz

Caution

acacia *Acacia decurrens*, *A. dealbata*, and *A. melanoxylon*

Acacias grow along most of the coast and inland in the central portion of the state. They spread by seed, root suckers, and stump sprouts, forming dense stands.



© 2000 Joe DiTomasso

A. dealbata



© 2000 Joe DiTomasso

A. decurrens



B. Richardson

A. melanoxylon

mayten *Maytenus boaria*

Has escaped gardens in the Davis area (Central Valley). More information is being gathered about potential ecological damage this tree may cause.



B. Richardson

Caution

olive *Olea europaea*

Produces hundreds of seeds which are spread by birds and mammals. Creates dense canopies that shade out other vegetation. Though commonly grown as a crop in California, gardeners should use caution planting this tree near open space.



B. Richardson

edible fig *Ficus carica*

Can be a problem in the San Francisco Bay area, the Central Valley, and southern California. May be spread by birds and deer, as well as by vegetation fragments. Can dominate stream and riverside habitat.



B. Richardson

single seed hawthorn *Crataegus monogyna*

An established invader in the Pacific Northwest, now spreading through northern California. Capable of long-range seed dispersal by birds. Creates dense thickets, changing the structure of woodland understories. May hybridize with and threaten native hawthorn species.



© 2000 Joe DiTomasso

The Next Two Species Are Highly Invasive Yet are Included in Reputable Websites. Read the Fine Print!

SelectTree

A TREE SELECTION GUIDE



SEARCH PACIFIC ISLANDS



SEARCH CHARACTERISTICS



SEARCH TREE LISTS



SEARCH HELP

TAMARISK

Tamarix parviflora

FAMILY Tamaricaceae

See: all *Tamarix* or *Champion*

SYNONYMS

ADDITIONAL COMMON NAMES



GENERAL INFO

Tolerates saline soils and smog.

Native range: Middle East

Potential invasiveness: %This plant is classified as potentially invasive in specific areas of California by the California Invasive Plant Council (Cal-IPC).%

Horticultural use: Screen or Hedged

TREE CHARACTERISTICS

Tree shape: Rounded

Foliage type: 1

Maximum tree height: 15 feet

Canopy width: 10-20 feet

Growth rate: ~24 in/year

Leaf arrangement and form: Alternate, Simple

Leaf/leaflet shape: Scale-like

Leaf color: Green

Flower color: Pink.

Flower type: Has either male or female reproductive parts (dioecious)

Flowering time: Spring

Fruit: Small Brown Capsule

Fruiting time: Summer

Bark: Dark Brown, Red Brown or Light Green, Smooth

Litter: Dry Fruit

SelectTree

A TREE SELECTION GUIDE



SEARCH PACIFIC ISLANDS



SEARCH CHARACTERISTICS



SEARCH TREE LISTS



SEARCH HELP

TREE-OF-HEAVEN

Ailanthus altissima

FAMILY Simaroubaceae

See: all [Ailanthus](#) or [Champion](#)

SYNONYMS

Ailanthus altissimus

ADDITIONAL COMMON NAMES

Tree of Heaven



GENERAL INFO

Tolerates hot and dry conditions, wind, air pollution, and difficult soils. However, is weedy and less desirable in most landscape situations. Can grow taller under some conditions.

Native range: China

Potential invasiveness: %This plant is classified as potentially invasive in specific areas of California by the California Invasive Plant Council (Cal-IPC).%

TREE CHARACTERISTICS

Tree shape: Rounded

Foliage type: 1

Maximum tree height: 60 feet

Canopy width: 40-60 feet

Growth rate: ~36 in/year

Leaf arrangement and form: Alternate, Pinnately Compound

Leaf/leaflet shape: Spear-shaped

Leaf color: Green

Flowers: Inconspicuous

Flower color: Yellow.

Flower type: Has male and female reproductive parts in each flower (perfect)

Flowering time: Spring

Fruit: Medium Red or Yellow Samara

Fruiting time: Fall

Bark: Light Green or Light Gray, Scaly, Smooth

Litter: Dry Fruit

Links to Trees for Tomorrow Information:

Trees for Tomorrow Toolkit

<https://ucdavis.box.com/s/5tuim9f6nu832v6dzas0ujvcp13a3hvc>

Trees for Tomorrow Events (short video)

<https://ucdavis.box.com/s/ij4kpxogIrok3eyyvkkq4oe27z36my78m>

Overview of Trees for Tomorrow Project (short video)

<https://ucdavis.box.com/s/h49wa6aesiu2iitqi31dme7ydv8kk3g9>

Third video from the UCR tree plot coming soon!



**Thank You for
Greening Tomorrow Today!**

**Questions?
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