Sunnyvale Urban Forest Advocates
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Tree Walk Tree Guide

The listed trees are found within Sunnyvale's parks and neighborhoods.
Check tree walk maps for trees located at specific parks.

Sources: Information obtained from arborists, online sources, and personal experience.

African Sumac, *Rhus lancea* - Also known as Karee, this tree is native to southern Africa. The tree grows up to 30 feet tall and wide, flowers in winter, and is drought tolerant.

Afrocarpus, *Afrocarpus gracilor* (formerly known as Podocarpus, also known as African Fern Pine) - Afrocarpus is a genus of evergreen trees native to Africa. The tree has narrow green leaves and can reach up to 60 feet in height. It is a hardy and variable tree, used often in gardens as a tree, hedge, screen, or espalier. It is also a common street tree in Sunnyvale, and there are many large and beautiful specimens throughout the city.

Akebono Cherry, *Prunus* × *yedoensis 'Akebono'* - A popular Japanese flowering cherry tree known for its early spring display of ruffled, semi-double blossoms that transition from soft pink to near-white. Maturing to about 25 feet in height and width, it requires full sun and well-draining soil.

Alder, *Alnus* - Alders are trees comprising the genus *Alnus* in the birch family Betulaceae. The genus comprises about 25 species of monoecious trees and shrubs, a few reaching a large size, distributed throughout the north temperate zone with a few species extending into Central America, as well as the northern and southern Andes.
With a few exceptions, alders are deciduous, and the leaves are alternate, simple, and serrated. The flowers are catkins with elongate male catkins on the same plant as shorter female catkins, often before leaves appear; they are mainly wind-pollinated, but also visited by bees to a small extent. These trees differ from the birches (*Betula*, another genus in the family) in that the female catkins are woody and do not disintegrate at maturity, opening to release the seeds in a similar manner to many conifer cones.

Aleppo Pine*, Pinus halepensis* (also known as the Jerusalem pine) - Native to the Mediterranean region. The tree can grow 50-80 feet tall with a single round trunk up to 4.5 feet in diameter. Believed to be the first holiday tree ever decorated, the Aleppo Pine is one of the few live Christmas trees that is especially adapted to arid climates. Younger trees have the symmetrical pyramid shape of a traditional holiday tree, but as this impressive tree ages, it will eventually shed its lower branches and develop a tall canopy with a distinctively open, cloud-like silhouette. This tall canopy casts ample cooling shade and makes Aleppo Pine one of the best overstory trees in arid regions. It also serves large landscapes as a windbreak, space definer, and skyline enhancer.

Arbutus Unedo, *Arbutus unedo* - Native from southwestern Ireland to the Mediterranean region, it is also known as Strawberry Tree, Killarney Strawberry Tree, Madroño, Strawberry Madrone.
The Strawberry tree is a charming evergreen tree with clusters of small, bell-shaped flowers alongside strawberry-like fruit in addition to showy cinnamon-colored bark and dark green leaves. The tree can reach 35 feet tall. The fruit, which is approximately 1 inch across, is edible when fully ripe, but it is gritty and lacks flavor. A member of the heath family, it belongs to the genus Arbutus, of which there are at least fourteen species of flowering shrubs and trees.

A native species is the Arbutus menziesii-- called Madrone, Pacific Madrone, Madroña, or Madroño. The madrone is native from British Columbia to Southern California in Coast Ranges and occasionally in middle elevations of the Sierra Nevada. The madrone is a tall tree that prefers riparian hillsides and has red, peeling bark and small red berries. "Menziesii" honors the tree's discoverer: Archibald Menzies (1754-1842), a Scottish surgeon, botanist, and naturalist. The name Madroño is attributed to Father Juan Crespi, chronicler of the 1769 Portola expedition that led to the founding of Alta California.

The manzanita, a native chapparal plant, has some similar characteristics to the Pacific Madrone and manzanita – red, peeling bark, white or pink bell-shaped flowers, and red fruit. The manzanita, however, is in a separate but related genus *Arctostaphylos.*

Interesting Facts: • In Ireland, Arbutus unedo is called Killarney Strawberry tree and Irish Strawberry tree. A traditional Irish ballad, "My Love's An Arbutus," compares the arbutus tree with the evergreen qualities of true love. • The name unedo is attributed to Pliny the Elder, a Roman author and naturalist, who in 50 AD allegedly claimed "unum tantum edo," meaning "I eat only one." • The Strawberry tree makes up part of the coat of arms (El oso y el madroño, The Bear and the Strawberry tree) of the city of Madrid, Spain. The Puerta del Sol ("Gate of the Sun") is the location of the most famous symbol of Madrid: a 20 ton statue of a bear eating fruits from a tree.

Atlas Cedar, ***Cedrus atlantica*** - A species of tree in the pine family Pinaceae, native to the Atlas Mountains of Morocco. Trees can grow up to 120 feet tall, has small needles and unique pinecones.

Australian Willow, *Geijera parviflora* - Commonly known as wilga, the Australian Willow is a species of shrub or small tree in the family Rutaceae and is endemic to inland parts of eastern Australia. It has drooping branches, linear to narrow lance-shaped leaves, small white flowers in loose panicles and spherical fruit containing a shiny black seed. The plant grows as a shrub or tree, with heights between 26 and 33 feet.

Bay Laurel, *Laurens nobilis* – Native to Mediterranean, also known as sweet bay. See California Laurel for native tree.

Beech (*Fagus*) is a genus of deciduous trees in the family Fagaceae, native to temperate Eurasia and North America. There are 13 accepted species in two distinct subgenera, *Engleriana* and *Fagus*. The subgenus *Engleriana* is found only in East Asia, distinctive for its low branches, often made up of several major trunks with yellowish bark. The better known *Fagus* subgenus beeches are native to Europe and North America. They are high-branching trees with tall, stout trunks and smooth silver-grey bark. The European beech *Fagus sylvatica* is the most commonly cultivated species, yielding a utility timber used for furniture construction, flooring and engineering purposes, in plywood, and household items. The timber can be used to build homes. Beechwood makes excellent firewood.

Beeches are monoecious, bearing both male and female flowers on the same plant. The small flowers are unisexual, the female flowers borne in pairs, the male flowers wind-pollinating catkins. They are produced in spring shortly after the new leaves appear. The fruit of the beech tree, known as beechnuts or mast, is found in small burrs that drop from the tree in autumn. They are small, roughly triangular, and edible, with a bitter, astringent, or mild and nut-like taste.

Black Birch, *Betula pendula* - This tree is found in the Appalachian region of the United States, mostly in moist ravines where there are cool summers. It is prized for its hard, heavy wood (used as a finish wood or veneer, and often stained or varnished), and its excellent yellow fall color. It is named for its mature black bark that resembles that of Black Cherry. Its twigs, if broken, have the strong scent of wintergreen (Yellow Birch also has this trait, but with reduced aroma), and the leaves and twigs may be distilled to extract this flavoring. This tree has unique, peeling trunks, as if the tree is diseased.

Blackwood Acacia – *Acacia melanoxylon*. Acacia is the world's largest tree genus with over 1200 species. They are usually found in warm, subtropical, and tropical regions, and are especially abundant in Australia. They are used for medicine, hardwood timber, tannins, fuel, forage, and dyes, as well as water-soluble gums used as thickening agents in processed foods and pharmaceuticals. They are fast growing and can reproduce aggressively. Most acacias live 20-30 years and bloom profusely when young. The blackwood acacia is one of the largest and longest-lived acacias – it can grow to 100 feet in its native Australia.

Bottle Tree, *Brachychiton*. From Eastern Australia, four varieties are common in California - Kurrajong, Illawarra flame tree, lacebark, and Queensland bottle tree. The trunks bulge in the middle, bloom erratically, and only on a portion of the canopy. Australian Aborigines roasted the seeds and used the fiber from the bark for baskets and ropes.

Buckeye – See Horse Chestnut

Bunya Pine, *Araucaria bidwillii* - Commonly known as the bunya pine and sometimes referred to as the false monkey puzzle tree, it is a large evergreen coniferous tree in the plant family Araucariaceae. It is found naturally in south-east Queensland Australia and two small disjunct populations in north eastern Queensland's World Heritage listed Wet Tropics. There are many old planted specimens in New South Wales, and around the Perth, Western Australia metropolitan area. They can grow up to 100-140 feet.
The bunya pine is the last surviving species of the Section *Bunya* of the genus *Araucaria*. This section was diverse and widespread during the Mesozoic with some species having cone morphology similar to *A. bidwillii*, which appeared during the Jurassic. Fossils of Section *Bunya* are found in South America and Europe. The scientific name honors the botanist John Carne Bidwill, who came across it in 1842 and sent the first specimens to Sir William Hooker in the following year.

California Laurel*, Umbellularia californica*.
In Oregon, this tree is known as Oregon myrtle, while in California it is called California bay laurel, California bay, or California laurel.
California Bay Laurel is an evergreen tree in the Lauraceae family that is native to coastal forests of California at elevations from 0-5000 feet. This large hardwood tree is the sole species in the genus Umbellularia.
The tree inhabits redwood forests, California mixed woods, yellow pine forest, and oak woodlands, usually in or near riparian areas. The species is very shade tolerant. It is reduced to a shrub in extreme dry and hot habitats, but typically reaches between 20 and 45 feet. The tree releases terpenes that kill off competing plants which can somewhat limit understory plants and tolerates serpentine or clay soils.

The tree's pungent leaves have a similar flavor to bay leaves, though stronger, and it may be mistaken for bay laurel. Use sparingly.
The fruit, also known as "California bay nut", is a round and green berry about one inch in diameter. Under the thin, leathery skin, it consists of an oily, fleshy covering over a single hard, thin-shelled pit, and resembles a miniature avocado. *Umbellularia* is in fact closely related to the avocado's genus *Persea*, within the family Lauraceae. The fruit ripens around October–November in the native range.

California Bay has long been valued for its many uses by Native Americans throughout the tree's range. Poultices of California Bay leaves were used to treat rheumatism and neuralgias. A tea was made from the leaves to treat stomach aches, colds, sore throats, and to clear up mucus in the lungs.
The fatty outer flesh of the fruit, or mesocarp, is palatable raw for only a brief time when ripe. Roasted, shelled "bay nuts" were eaten whole, or ground into powder and prepared as a drink which resembles unsweetened chocolate.

In the wild, Dusky footed woodrats line their nests with bay leaves to ward off insects. The tree is a host of the pathogen that causes sudden oak death.

California Pepper, *Schinus molle* - Also known as Peruvian pepper, American pepper, Peruvian peppertree, escobilla, false pepper, molle del Peru, pepper tree, peppercorn tree, California pepper tree, pirul, Peruvian mastic and pepperina. The California Pepper is a quick growing evergreen tree that grows to 50 feet (15 meters) that is native to the Peruvian Andes. It is the largest of all Schinus species and potentially the longest lived. It has, however, become widely naturalized around the world where it has been planted. It is known for its strong wood used for saddles. It was part of the Spanish colonies' supply sources for saddles and was used as an ornamental and for spice production. Schinus molle is a drought-tolerant, long-lived, hardy evergreen species that has become a serious invasive weed internationally. The bright pink fruits of Schinus molle are often sold as "pink peppercorns" although it is unrelated to true pepper (Piper nigrum). The word molle in Schinus molle comes from mulli, the Quechua word for the tree. The tree has distinctive grayish bark that twists and dips, sap, and colorful red berries that have been used to make chicha (Incan alcohol), to dye cloth, and as a medicine. The leaves, however, can be toxic.

Camphor Tree, *Cinnamomun camphora* - This is an evergreen tree native to Asia, but it has been introduced to many other countries. In Japan, there are five known camphors with circumferences over 60 feet, with the largest measuring in at just under 80 feet! They have an estimated lifespan of 150 years. Camphor trees are planted around the world as ornamentals in parks and gardens and they are considered naturalized in many places, but in subtropical climates like Florida, they can become invasive. Camphor is a white crystalline substance, obtained from the tree C. camphora. Camphor has been used for many centuries as a culinary spice, a component of incense, and as a medicine. It is also an insect repellent and a flea-killing substance, as well as used in the production of smokeless gunpowder and celluloid.

Canary Island Date Palm, *Phoenix canariensis* - Phoenix canariensis is a species of flowering plant in the palm family Arecaceae, native to the Canary Islands. It is a relative of Phoenix dactylifera, the true date palm. It is the natural symbol of the Canary Islands, together with the canary Serinus canaria. Mature P. canariensis are often used in ornamental landscaping and are collected and transplanted to their new planting location. In some areas, it has proven to be an invasive plant. In Bermuda and the United States (Florida and California) it is considered naturalized. Fossil history proves that date palms have been on Earth for over 50 million years. The first evidence of date palm cultivation dates back 9000 years. Triumphal processions in ancient Rome most likely used the fronds of the date palm to symbolize victory. Dates were introduced to California and Mexico by the Spaniards in 1765. One cultivar sprouted from a seed that was 2000 years old, giving the date palm the record for the oldest viable seed in the world.
Reflecting the maritime trading heritage of Britain, imported chopped dates are added to, or form the main basis of a variety of traditional dessert recipes including sticky toffee pudding, and date and walnut loaf. Dates are mentioned more than 50 times in the Bible and 20 times in the Qur'an. Many Jewish scholars believe that the "honey" reference in the Bible to "a land flowing with milk and honey" (Exodus chapter 3) is actually a reference to date "honey", and not honey from bees. In Islamic culture, dates and yogurt or milk are traditionally the first foods consumed for Iftar after the sun has set during Ramadan.

Canary Island Pine, *Pinus canariensis* – This is a large evergreen tree native to the outer Canary Islands in the Atlantic Ocean. It is one of the most drought tolerant conifers, existing in climates with as little as 7.9 inches (200 mm) of rainfall annually. It is the tallest tree in the Canary Islands, but due to overcutting in the past, not many of the largest trees remain. In its native habitat, it serves as an important part of the island water cycle, where the extremely long needles trap condensation from the moist air coming off the Atlantic and drop it onto the soil, where it is quickly absorbed and filters down to the aquifers. The Canary Island Pine is a popular ornamental street tree around the world due to its drought tolerance and impressive height.

Carob Tree, *Ceratonia siliqua*. Native to Northeastern Africa, this evergreen tree can grow up to 40 feet tall. Female trees produce brown, flattened legumes. The fruit is high in sugar and protein. The seeds, which are uniform in size and weight (about 5 seeds per gram), were the original jeweler's carat weight. The fruit is processed into flour and used as a chocolate substitute in candy.

Catalina Ironwood, *Lyonothamnus floribundus ssp. Asplenifolius* - This is an attractive and unique tree with fern-like fringy leaves native to the Channel Islands off California. In ornamental landscapes, it is a fast-growing tree that can reach heights of 25 feet to 50 feet tall with a tall and upright form, but if alternate shoots are not trimmed off the trunk, it may end up with many trunks and a large canopy of 25-35 feet. Creamy white flowers appear in early spring. The leaves are especially appealing, often pinnately divided into 3-7 leaflets with deeply lobed margins.

Cherry – See Akebono Cherry and Kwanzan Cherry

Chinese Elm, *Ulnus parvifolia* - Native to Asia, this is a small to medium deciduous or semi-deciduous (rarely semi-evergreen) tree growing to 33-59 feet (10–18 meters) tall and 49-66 feet (15–20 meters) wide with a slender trunk and crown. It is a perfect shade tree where there is limited space for the trunk. It is also called the Lacebark because of its distinctive lacey bark. Elms, hickory and ash all have remarkably hard, tough wood that has made them popular for use as tool handles, bows and baseball bats. Chinese elm is considered the hardest of the elms. It is highly resistant, but not immune to Dutch Elm Disease. Dutch Elm Disease was inadvertently introduced to North America when a shipment of diseased elm carrying Elm Beetles was accepted in NY in 1928. The disease was mainly contained to within 150 miles of NYC with quarantine and sanitation until 1941, when war demands took away the funding. The disease then spread rapidly, killing 75% of an estimated 77 million trees by 1990 (an estimated 58 million trees).

Chinese Fan Palm, *Livistona chinesis* - The Chinese fan palm or fountain palm, is a species of subtropical palm tree of east Asia. Because it is native to southern Japan, Taiwan, and the Ryukyu Islands, it is sometimes called a Japanese fan palm. The palm can attain heights of about 30 to 50 feet (9 to 15 m) and a spread of 12 feet (4 m). The leaves are fan shaped. This palm is cultivated worldwide as an ornamental.

Chinese Pistache, *Pistacia Chinesis* - NOT related to the pistachio, this tree is a member of the cashew family. Native to China, it is popular as an ornamental for its spectacular fall foliage and its drought/frost/sun/soil tolerance. The trees occur as either male or females, but the females are sometimes avoided due to their clumps of berries they can drop profusely in the fall. The pollen given by the males is an allergen to many people. Both males and females provide spectacular fall foliage before dramatically dropping their leaves.

Chinese Tallow – *Triadica sebifera* - Common names are: Chinese tallow tree, popcorn tree, chicken tree, Florida aspen, Vegetable tallow, and white wax berry. Chinese Tallow is native to China, grows 30-40 feet tall, is deciduous, and provides fall color. The tree, however, is invasive and invades wildland areas and rapidly replaces the natural communities. Originally planted as a shade tree in urban areas, it can threaten wildlife habitat and crowd out native vegetation. It is only beginning to invade riparian areas of California, but is considered a major invasive species in the south.

Coast Live Oak, *Quercus agrifolia*, is a beautiful evergreen oak that grows predominantly west of the central valleys, as far north as Mendocino County, and as far south as northern Baja California in Mexico. This tree typically has a trunk with many branches and reaches a mature height of 35-100 feet. Some specimens may attain an age exceeding 250 years, with trunk diameters up to three or four meters. Its form is highly variable, making it sometimes difficult to identify, and younger trees are often shrubby. The trunk, particularly for older individuals, may be highly contorted, massive, and gnarled. The Coast Live Oak is one of the only California native oaks that thrives in the coastal environment, although it is rare on the immediate shore. It enjoys the mild winter and summer climate afforded by ocean proximity, and it is somewhat tolerant of aerosol-borne sea salt. The coastal fog supplies relief from the rainless California summer heat. Due to its versatility and tolerance, as well as its tall and stately nature, the Coast Live Oak is widely planted in urban and suburban areas. It is also well documented that the Coast Live Oak takes in a larger percentage of toxins and pollutants from the environment than many other trees, and therefore is ideal in city settings. There is a movement currently to re-oak California with Coast Live Oaks.

The Spanish name for this tree is 'encinas' and it has given name locations to many locations throughout this state. Even one of Sunnyvale's first names was Encinal which means Oaks (The others being 'Murphy Station' and 'City of Destiny'). The post office on Fremont Avenue is called Encinal Station.

Coast Redwood, *Sequoia sempervirens* - One of three trees in the Cypress family classified as Redwoods (due to reddish bark). The other two are the Giant Sequoia (Sequoiadendron giganteum) and the Dawn Redwood (Metasequoia glyptostroboides). The Giant Sequoia are the largest trees in the world and are found on the west slope of the Sierra Nevada. The Dawn Redwood was thought to be extinct until it was discovered flourishing in the 1940's in China. The Dawn Redwood is deciduous in its native habitat, unlike the other two. All three species are remnants of a vast prehistoric forest of conifers that covered much of North America and Europe until the last ice age limited their range.

The amazing Coast Redwood trees can live over 2000 years and obtain heights of almost 400 feet. They are the tallest living things on earth and one of the fastest growing conifers. Redwood fossils date back more than 200 million years. In reference to their longevity, the name "sempervirens" means always flourishing. The Coast Redwood is home only on the Pacific Coast, from Monterey to Southwest Oregon, ideally in deep valleys and gullies with year-round streams and heavy fog. Redwood bark is very thick and fire resistant. The lumber has been used as railroad ties and trestles due to its resistance to rot (due to terpenoids and tannins). Due to heavy logging, only 5% of the original old-growth forest remains. There are approximately 230 known albino redwoods in California that completely lack chlorophyll but can survive when fed nutrients from other trees through the interlaced root network.

Copper Beech, *Fagus sylvatica purpurea* - Native to Europe, this beautiful tree is used worldwide as an ornamental for its unique foliage that begins orangey-copper, then holds a deep plum-wine color all summer long before going fiery again in the last gasps before winter. The European Beech is often chosen over the American because it is faster growing - it will grow in 30 years to the same size that the American grows in 40. It is a tree that has a long maturation period, and a crop of beech nuts won't appear on the tree until 30 years have passed. The copper beech will gradually grow to occupy great space, with a mature tree topping out over 50 to 70 feet tall and almost as wide, but specimens have been found that were over 100 feet tall. The wood it produces is good for everything except heavy structural support.

Cork Oak, *Quercus suber* - This gorgeous, long living tree is the source of the cork harvested for wine bottles, flooring, and many other products. Native to the Mediterranean region, its thick, insulating bark protects it from forest fires. Cork oaks commonly live more than 200 years. The largest and oldest living specimen is a tree in Spain that is dated at 234 years old and requires five people holding hands to encircle it. Virgin cork (or 'male' cork) is the first cork cut from generally 25-year-old trees. Another 9 to 12 years is required for the second harvest, and a tree can be harvested about twelve times in its lifetime. Cork harvesting is done entirely without machinery, being dependent solely on human labor. The cork left after stoppers have been made is used to make a wide range of products, including insulation panels, floor and wall tiles and sound-proofing in the car industry, as well as for handicrafts and artistic uses. The thick bark is the tree's adaptation to the endemic forest fires of its native habitat. When such a fire occurs, the bark protects the tree, and it merely has to regrow the canopy.

Corymbia Red Flowering Gum, *Corymbia ficifolia* - Commonly known as red flowering gum, is a species of small tree that is endemic to the southwest of Western Australia. It has rough, fibrous bark on the trunk and branches, egg-shaped to broadly lance-shape adult leaves, flower buds in groups of seven, bright red, pink or orange flowers and urn-shaped fruit. It has a restricted distribution in the wild but is one of the most commonly planted ornamental eucalypts. In nature *Corymbia ficifolia* prefers infertile, sandy soils but it is readily adaptable to most temperate locations, provided it is not exposed to severe frost or sustained tropical damp. The tree can grow up to 30 feet.

Crabapple, *Malus* – Malus is a genus of about 32-57 species of mall deciduous trees or shrubs in te family Rosaceae, including the domesticated orchard apple, crab apples, and wild apples. The genus is native to the temperate zone of the Northern Hemisphere. Apple trees are typically 15-40 feet tall at maturity with a dense, twiggy crown. Crabapples are popular as compact ornamental trees, providing blossoms in spring and colorful fruit in autumn. The fruits often persist throughout winter. Crabapples are safe to eat.

Crape Myrtle, *Lagerstroemia* - Over 50 varieties of this beautiful flowering tree exist, with long lasting flowers ranging from white, yellow, to pink, purple and red and even blue. Native to Southeast Asia, Australia and Oceania, these trees are planted worldwide as ornamentals. They can be from 1 - 100 feet tall and are extremely variable in appearance. They can be pruned into all kinds of shapes and sizes and make wonderful living screens and fences.

Dawn Redwood, *Metasequoia* - A fast-growing deciduous tree, one of three species of conifers known as redwoods, and the sole living species in its genus. It is native to Lichuan county in Hubei province, China. Although the shortest of the redwoods, it grows to at least 165 feet (50 meters) in height. Local villagers refer to the original tree from which most others derive as Shui-sa, or "water fir", which is part of a local shrine. Until 1944 it was believed to be extinct, but then a vast forest of the trees was discovered in remote China. It differs from the two other species of Redwoods in that it loses its needles in the winter and often resembles a dead tree until growth resumes in spring. Not all Dawn Redwoods outside of China lose their needles, and it is thought that the northern latitude and the quality or angle of sunlight play a role in this. The dawn redwood has become a popular ornamental and somewhat of a novelty tree, with examples found in various parks in a number of countries.

Deodar Cedar*, Cedrus deodara* - Also known as the Himalayan cedar, it is a species of cedar native to the Himalayas. It grows at altitudes of 1,500–3,200 m (5,000–10,000 ft). It is a large evergreen coniferous tree reaching 130-160 feet (40–50 m) with a trunk up to 10 feet (3 m) in diameter. It has a conic crown with level branches and drooping branchlets. The botanical name, which is also the English common name, derives from the Sanskrit term *devadāru*, which means "wood of the gods", a compound of *deva* "god" and *dāru* "wood and tree."

Deodar is in great demand as building material because of its durability, rot-resistant character and fine, close grain, which is capable of taking a high polish. Despite its durability, it is not a strong timber, and its brittle nature makes it unsuitable for delicate work where strength is required, such as chair-making.

The inner wood is aromatic and used to make incense. Inner wood is distilled into essential oil. As insects avoid this tree, the essential oil is used as insect repellent on the feet of horses, cattle, and camels. It also has antifungal properties and has some potential for control of fungal deterioration of spices during storage. The outer bark and stem are astringent. Cedar oil is often used for its aromatic properties, especially in aromatherapy. Its applications include soap perfumes, household sprays, floor polishes, and insecticides.

Desert Willow, *Chilopsis* – Chilopsis is a monotypic genus of flowering plants containing the single species Chilopsis linearis. It is commonly known as desert willow because of its willow-like leaves, but it is not a true willow, being instead a member of the catalpa family. It is a shrub or tree native to the southwestern United States and Mexico. It is commonly seen in washes and along riverbanks. The tree can grow up to 30 feet in height and blooms from April through September.

Douglas Fir, *Pseudotsuga menziesii* - The Douglas fir is an evergreen conifer species in the pine family, Pinaceae. It is native to western North America and is also known as Douglas-fir, Douglas spruce, Oregon pine, and Columbian pine.
Despite its common names, it is not a true fir (genus *Abies*), spruce (genus *Picea*), or pine (genus *Pinus*). It is also not a hemlock; the genus name P*seudotsuga* means "false hemlock".

Douglas fir is native and can be found along the coast from Central California to Canada. Douglas-firs are medium-size to extremely large evergreen trees, 70-330 feet (20–100 m) tall and up to 8 feet (2.4 m) in diameter. The largest coast Douglas-firs regularly live over 500 years, with the oldest specimens living for over 1,300 years. Douglas fir grows tall and straight. In fact, it is the tallest conifer in the Northwest, growing to over 300 feet (90 meters). Only redwoods in California grow to a greater height. Douglas fir is also the most common and widely distributed species in the Pacific Northwest. It thrives in direct sunlight but is shade intolerant. It naturally propagates from seeds on bare ground in areas destroyed by fire. Douglas fir is an important timber tree because its strength makes it ideally suited for structural timbers and framing lumber in home construction. Douglas fir is also a popular Christmas tree.

As the scientific name indicates, Douglas fir is not classified as a fir (Abies). It has been called a pine, hemlock and spruce. It is more closely related to the larch than any of these. Its scientific name changed 21 times as botanists attempted to determine the correct classification for the species. Although it has blisters in its bark like the true firs, in many other respects it is quite unlike the firs. The cones look more like hemlock or spruce cones than fir cones. But other differences clearly distinguish it from the hemlocks and spruces.

Douglas Fir cones are unique and can be used to quickly identify the tree.
Legend says that a long time ago there was a large fire in the forests of the west. Many animals were running around frantically trying to escape the flames. Tiny mice, not fast enough to outrun the fire, were trying to find shelter in various trees. The mice approached many trees asking for their help and were continuously denied. Finally, they approached the large and mighty Douglas fir tree and asked if they could take shelter amongst its branches. The Douglas fir agreed to help the mice and allowed them to hide in its cones. The mice survived the fire, and to this day, if you examine a Douglas fir cone you can see the tails of the mice sticking out of the scales of a cone.

Eucalyptus – see Southern Blue Gum Eucalyptus

European Hornbeam, *Carpinus betulus* - A European hornbeam is native to Western Asia and central, eastern, and southern Europe, including southern England. It requires a warm climate for good growth and occurs only at elevations up to 1969 feet (600 meters). It grows in mixed stands with oak, and in some areas, with beech. Hornbeam was also known as 'Yoke Elm'. The wood is heavy and hard and is used for tools and building construction. It also burns hot and slowly, making it very suitable for firewood.

Ginkgo, *Ginkgo biloba* - This is a very special and unique tree, also called the maidenhair tree. Each individual tree can live up to 3000 years, and the species has existed since the time of the dinosaurs. Fossilized ginkgo leaves date back to 270 million years ago! The leaves are unique amongst trees in the lack of a central vein. This tree survives and adapts well, tolerating heat, air pollution and soil salt. The female trees drop ginkgo nuts - some people consider the nuts to have an unpleasant odor, and some people consider them a delicacy. Ginkgo trees offer a lovely rippling effect with wind and turn dramatic yellows in the fall.

Golden Raintree*, Koelreuteria paniculata* - Common names include goldenrain tree, golden raintree, pride of India, China tree, and the varnish tree. A species of flowering plant, it is native to eastern Asia, China and Korea. It was introduced in Europe in 1747, and to America in 1763, and has become a popular landscape tree worldwide. It is a small to medium-sized deciduous tree growing up to 23 feet (7 m) tall, with a broad, dome-shaped crown. The leaves are pinnate and the flowers are yellow, with four petals. The fruit is a three-part inflated bladderlike pod that is green, then ripening from orange to pink in autumn. It contains several dark brown to black seeds. It is popularly grown as an ornamental tree in temperate regions all across the world because of the aesthetic appeal of its flowers, leaves and seed pods.

Holly, *Ilex* - Holly is a genus with 560 species of evergreen or deciduous trees, shrubs, and climbers from tropics to temperate zones worldwide. The *Ilex aquifolium*, the common European holly, is used in Christmas decorations and cards. Plants in this genus have simple, alternate glossy leaves, frequently with a spiny leaf margin. The inconspicuous flower is greenish white, with four petals. They are generally dioecious, with male and female flowers on different plants. The fruits ripen in winter and thus provide winter color contrast between the bright red of the fruits and the glossy green evergreen leaves. The fruits are generally slightly toxic to humans but they are an important food source for birds and other animals, which help disperse the seeds.

Holly Oak, *Quercus ilex* (also known as holm oak). Native to the Mediterranean, this is one of the most widely planted non-native oaks in California. The wood from these trees is hard, tough, and perfect for general construction. These are one of the top three trees used for truffle orchards. The acorns are also an important food for pigs in the Iberico ham industry in Spain.

Honey Locust, *Gleditsia Triacanthos* - Although native to moist river valleys in North America, in many places in the US and especially in Australia, it is considered invasive, due to its extreme tolerance, easy transplantation and weed-like growth in sub-tropical climates. It is a relatively short-lived tree (around 120 years), but it is popular as an ornamental, due to its unique yellowish coloring, fringy leaves, interesting zig-zag branch pattern and immense shade from mature trees. The name stems from the sweet legume pulp found in the seed pods that were both food and medicine for Native Americans. There is currently a niche market for honey locust furniture.

Horse Chestnut, ***Aesculus genus*** – The genus *Aesculus*, with species called buckeye and horse chestnut, comprises 13–19 species of flowering plants in the family Sapindaceae. They are trees and shrubs native to the temperate Northern Hemisphere, with six species native to North America and seven to 13 species native to Eurasia. Several hybrids occur.
This is a species of flowering plant. It is a large, deciduous, dioecious (hermaphroditic-flowered) tree. It is also called horse-chestnut, European horsechestnut, buckeye, and conker tree.
The horse chestnut is not a true chestnut and it is not to be confused with the genus *Castanea,* which produces the edible chestnut.

The leaves are opposite and palmately compound, with 5–7 leaflets 13–30 cm (5–12 in) long, making the whole leaf up to 24 inches across, with a 3–8 in petiole. The leaf scars left on twigs after the leaves have fallen have a distinctive horseshoe shape, complete with seven "nails". The flowers are usually white with a yellow to pink blotch at the base of the petals; they are produced in spring in erect panicles 4–12 inches tall with about 20–50 flowers on each panicle. Usually only 1–5 fruits develop on each panicle. The shell is a green, spiky capsule containing one (rarely two or three) nut-like seeds called conkers or horse-chestnuts. Each conker is 2–about 1 inch in diameter, glossy nut-brown with a whitish scar at the base.

The **California buckeye** (*Aesculus californica*), the only buckeye tree native to the western United States, hales from California and southern Oregon. In the wild, it can reach heights of up to 40 feet, but usually tops out at only 15 feet.

All parts of the buckeye or horse chestnut tree are moderately toxic, including the nut-like seeds. The toxin affects the gastrointestinal system, causing gastrointestinal disturbances. Its pollen is not poisonous for honey bees, but will kill other types of bees.

Native Americans used to crush the seeds and the resulting mash was thrown into still or sluggish waterbodies to stun or kill fish. They then boiled and drained (leached) the fish at least three times to dilute the toxin's effects. New shoots from the seeds also have been known to kill grazing cattle.

Italian Alder*, Alnus cordata* is a tree or shrub species belonging to the birch family Betulaceae, and native to Italy. See Alder.

Italian Cypress, *Cupressus sempervirens* - Also known as Mediterranean cypress, this Mediterranean tree is long-lived with slim, dark green appearance. It has highly scented and durable wood. The tree is often used as an accent tree or for screening.

Italian Stone Pine, *Pinus pinea* - A tree prehistorically native to Africa, when the climate was less arid, but is nowadays considered native to the Mediterranean. It has also become naturalized in areas as diverse as North Africa, the Canary Islands, South Africa and New South Wales. Recognized by its umbrella-like canopy and its edible pine nuts, Stone pines are widespread in horticultural cultivation as ornamental trees, planted in gardens and parks around the world. They are notable amongst pine trees as having the longest maturation rate for their cones with the pine nuts of three years. The tree is among the symbols of Rome, where many historic Roman roads, such as the Via Appia, are embellished with lines of stone pines. Stone pines were planted on the hills of the Bosphorus strait in Istanbul for ornamental purposes during the Ottoman period. In the 1700s, they were introduced as an ornamental tree to other Mediterranean climate regions of the world and are now often found in gardens and parks in South Africa, California, and Australia.

Jacaranda, *Jacaranda mimosifolia* – A genus of 49 species of flowering plants in the family Bignoniaceae, it is native to tropical and subtropical regions of Mexico, Central America, South America, Cuba, Hispaniola, Jamaica, and the Bahamas. This magnificent South American tree was first brought to South Africa in 1880 to add a splash of ornamental color to the dusty palette of the savannah, but it became so comfortable there that it is now considered invasive. In the native habitat, they are deciduous, not because of cold winters, but because of the monsoonal wet and dry seasons. They briefly drop their leaves at the end of the dry season, then leaf up again when the rain comes. Trees vary greatly in form, from being shrublike to 100 foot tall trees, with blue to blue-purple flowers. White flowers are also possible, although extremely rare. Several species are widely grown as ornamental plants throughout the subtropical regions of the world, valued for their intense flower displays. The most often seen is the Blue Jacaranda, Jacaranda Mimosifolia. The generic name is also used as the common name.

Japanese Black Pine, *Pinus thungergii* – This tree is native to coastal areas of Japan and South Korea. This is a widely adapted plant with dark green foliage. Black pines can reach the height of 130 feet (40m), but rarely achieve this size outside its natural range. Bark is gray on young trees, changes to black and plated on larger branches and the trunk, becoming quite thick on older trunks. Because of its resistance to pollution and salt, it is a popular horticultural tree. In Japan it is widely used as a garden tree both trained as Niwaki and untrained growing as an overstory tree. The trunks and branches are trained from a young age to be elegant and interesting to view. It is one of the classic bonsai subjects.

Japanese Fan Palm, *Livistona chinesis* – See Chinese Fan Palm

Japanese Flowering Cherry, *Prunus serrulata* - These are very beautiful and iconic trees, but also prone to diseases and pests. They are bred for their flowers, not fruit, so while considered an ornamental, many of them produce small, bitter fruit that humans don't eat, but birds like. In Japan, they are often planted in parks and other public spaces and tend to attract crowds during their spectacular blooming period, which can be as short as one week or up to a month. Cherry blossom festivals in Japan also tend to be solemn occasions, where people think about the brief and ephemeral qualities of life as symbolized by the short-lived colorful eruption of the trees. They are often featured in Eastern art and poetry. However, they do not traditionally appear in private gardens, where plants are chosen for their year-round appeal. The trees themselves are short-lived as well, with most species surviving under 40 years. With over 100 cultivars, these trees have had an amazing amount of diversity bred into the petals. They range from simple, single and somewhat sparse blossoms to dense, double, and spectacular blossoms. The blossoms themselves tend to change color, starting off at their darkest and fading.

Japanese Maple, *Acer palmatum* - This is an incredibly variable, much cultivated tree native to Japan. There are over 700 cultivars available, ranging from bonsai to bushes to small trees of all shapes and sizes, with many different attributes in their coloring and leaves. Japanese maples make good garden trees, as they are happy in containers (if they have a constant source of water). They also are excellent neighbors with companion plants due to their non-invasive roots.

Japanese Pagoda Tree, *Styphnolobium japonicum* – Despite its name, this tree is native to China and is also known as the Chinese Scholar Tree and honey tree. It is a popular ornamental tree in Europe, North America and South Africa, grown for its white flowers which bloom in late summer after most other flowering trees have long finished flowering. It grows into a lofty tree 33 to 66 feet (10–20 m) tall with an equal spread, and produces a fine, dark brown timber. The tree is deciduous, and forms seed pods that look like hanging beads. Its dried leaves constitute one of the 50 fundamental herbs used in Chinese medicine (huai hua mi). The Guilty Chinese Scholar Tree was a historic pagoda tree in Beijing, from which the last emperor of the Ming dynasty, Chongzhen, hanged himself.

Japanese Zelkova, *Zelkova serrata* - Zelkova serrata is native to Japan, Korea, eastern China and Taiwan. It is often grown as an ornamental tree and used in bonsai. The tree can reach 50-80 feet in height and a spread of 50-70 feet. This tree will tolerate most soil types including those with a pH to about 7.5, but prefers deep, moist, well drained soils. It does well in full sun. Established trees are fairly drought and wind tolerant (if properly pruned).

Kwanzan Cherry, *Prunus 'Kwanzan'* – A flowering cherry cultivar with deep pink double flowers. The deciduous tree grows between 3 and 39 feet in height.

Liquidambar *styraciflua* – Also known as American storax, hazel pine, bilsted, redgum, satin-walnut, star-leaved gum, alligatorwood, or simply sweetgum, this tree is native to the southeastern U.S. It is a fast-growing deciduous tree which provides welcome shade. It is one of the few trees that gives the west a true display of fall foliage, when the five-pointed, maple-like leaves change to vibrant colors of yellow, orange, red and brown. The liquidamber prefers deep, well-drained soil and abundant water. The tree drops prolific, spiked, seed capsules that can be dangerous, known as "pokey balls" to children or as spiked fruit that persists for a long time after being dropped by the tree. These are quite painful to walk on barefoot and can be dangerous even with shoes, as many rolled ankles and falls have been attributed to them. In fact, these trees are banned in many cities specifically for these reasons.

Lombardy Poplar, *Populus nigra "Italica"* - This is a species of cottonwood poplar native to Europe, Asia and northern Africa. It is a member of the willow family and is related to the famous 'quaking aspens' (Populus tremoides). This species of poplar is tall and thin, its shape is columnar. Lombardy poplar trees grow rapidly and can grow to a mature height of up to 60 feet, spreading around 12 feet. However, most are killed by canker disease within 15 years, so large specimens are hard to find. Despite its quick growth and attractive fall color display, Lombardy poplars have disadvantages, including the tree's susceptibility to diseases and pests.

London Plane Tree, *Platanus x acerifolia* - Having distinctive mottled trunks with large leaves similar to Maples, the London plane is very tolerant of atmospheric pollution and root compaction. For this reason, it is a popular urban roadside tree. It was planted extensively in Victorian times to weather the pollution of London. It is now extensively cultivated in most temperate latitudes as an ornamental and parkland tree. There are so many London Plane trees in New York City (over 10% of the city's trees), that it is now restricted for use as a street tree. It creates magnificent displays of foliage in mature trees. It is a hybrid of the western sycamore (Platanus occidentalis) and Platanus acerfolia. The London Plane and Western Sycamore are distinguishable from each other almost immediately by location, with California sycamores naturally growing only in wet areas and London plane trees almost exclusively planted in urban areas.

Maple, *Acer* - Acer is a genus of trees and shrubs commonly known as maples. The genus is placed in the family Sapindaceae. There are approximately 132 species, most of which are native to Asia, with a number also appearing in Europe, northern Africa, and North America. Only one species extends to the Southern Hemisphere. The maples usually have easily recognizable palmate leaves and distinctive winged fruits. Maple syrup is made from the sap of some maple species.

Most maples are trees growing to a height of 30-140 feet (10–45 m). Others are shrubs less than 30 feet tall with a number of small trunks originating at ground level. Most species are deciduous, and many are renowned for their autumn leaf color, but a few in southern Asia and the Mediterranean region are evergreen. Most are shade-tolerant when young and are often riparian, understory, or pioneer species rather than climax overstory trees. There are a few exceptions such as sugar maple.

The distinctive fruits are called samaras, "maple keys", "helicopters", "whirlybirds" or "polynoses". These seeds occur in distinctive pairs each containing one seed enclosed in a "nutlet" attached to a flattened wing of fibrous, papery tissue. They are shaped to spin as they fall and to carry the seeds a considerable distance on the wind. People often call them "helicopters" due to the way that they spin as they fall. During World War II, the US Army developed a special airdrop supply carrier that could carry up to 65 pounds (29 kg) of supplies and was based on the maple seed.

Mayten Tree, *Maytenus boaria* - The Mayten Tree is native to waterways in arid and semiarid regions of Chile, Argentina, and Peru. The name "Maytenus" comes from 'mantun', the Mapuche Indian name for this species. The specific epithet 'boaria' meaning "of the cattle" is in reference to cattle's preference for the foliage of this plant as forage. A very attractive evergreen tree, it grows to about 30 feet tall and spreads to nearly an equal width with a rounded crown and weeping and pendulous branches of small bright green leaves that are held perpendicular to the stem. Tiny yellow flowers that appear in winter are inconspicuous and sometimes followed by small brown capsules containing red seeds. This plant makes it a good substitute for the Weeping Willow because it requires less water, and its roots are not invasive.

Melaleuca, *Melaleuca quinquenervia* - A genus of nearly 300 species of evergreen plants in the myrtle family, Myrtaceae, commonly known as paperbarks, honey-myrtles or tea-trees (although the last name is also applied to species of Leptospermum). They range in size from small shrubs that rarely grow to more than 3 feet high, to trees up to 100 feet. Their flowers generally occur in groups, forming a “head” or “spike” resembling a brush used for cleaning bottles, containing up to 80 individual flowers. Native mainly to Australia, Melaleucas are planted world-wide as ornamentals due to their adaptability, tolerance, and beauty. However, people living under them often find that they need constant maintenance, as they drop organic matter seemingly all year long. Most have distinct oil glands dotted in the leaves, making the leaves aromatic, especially when crushed.

Mexican Blue Oak, *Quercus oblongifolia* – Commonly known as Southwestern blue oak, Arizona blue oak, Blue live oak, or Sonoran blue oak, this tree grows in high grasslands, canyons, and mesas in southwestern United States and northwestern Mexico. The Mexican Blue oak is a small evergreen drought-tolerant tree with blue-green foliage. The tree can grow 20-30 feet tall and wide, with a trunk 1-2 feet in diameter. These trees are often planted in urban settings because of their fast growth and beautiful foilage.

Mexican Fan Palm, *Washingtonia robusta* - The Mexican fan palm or Mexican washingtonia, is a palm tree native to western Sonora and Baja California Sur in northwestern Mexico. It is grown as an ornamental tree, reaching 80-90 feet tall. Potential longevity may exceed 500 years in its native habitat. These palms have been planted throughout California and can be seen in iconic images of Los Angeles.

Monkey Puzzle Tree*, Araucaria araucana* - Also known as the monkey tail tree, piñonero, or Chilean pine, this is an evergreen tree native to central and southern Chile and western Argentina. Araucaria araucana is the hardiest species in the conifer genus Araucaria. Once established, these trees can live up to 1000 years. Because of the longevity of this species, it is described as a living fossil. It is also the national tree of Chile. It is often planted as an ornamental tree for its unique branches covered with scaly, triangular leaves resembling those of a succulent. Interestingly, each leaf has an average lifespan of 24 years.
The origin of the popular English language name "monkey puzzle" derives from its early cultivation in Britain, about 1850, when the species was still very rare in gardens and not widely known. Sir William Molesworth, the proud owner of a young specimen at Pencarrow garden near Bodmin in Cornwall, was showing it to a group of friends, one of them – the noted barrister and Benthamist Charles Austin – remarked, "It would puzzle a monkey to climb that". As the species had no existing popular name, first "monkey puzzler", then "monkey puzzle" stuck.

Monterey Pine*, Pinus radiata* - Native to central California and Mexico, these pine trees, like many others, need fire to open their cones and release the seeds. The wood is a medium softwood, and roots totaling 39 feet in length have been found. In Pacific Grove, wintering Monarch butterflies have been known to stay in a particular group of Monterey pines year after year. When exposed to the harsh temperatures, wind, and salt spray of the ocean, the Monterey pine may display stunted growth with gnarled branches.

Norfolk Island Pine, *Araucaria heterophylla* (synonym A. excelsa)- Native to Norfolk Island in the Pacific Ocean, this tree is both highly adaptable and highly resistant to salt. The tree has a symmetrical shape and is a slow growing tree that can reach up to 200 feet. Originally esteemed for a long and straight trunk, the wood was found to be too soft for use as ship masts. But the trees have luxurious foliage, and they were used as religious symbols by missionaries among Indigenous populations due to the branches forming what resembles a cross up on top.

Northern Red Oak, *Quercus rubra* - Commonly called northern red oak or champion oak, this is a deciduous oak in the red oak group. It is a native of North America, in the eastern and central United States and southeast and south-central Canada. Under optimal conditions and full sun, northern red oak is fast-growing and trees can grow as tall as 140 feet. Trees may live up to 400 years. Northern red oak is easy to recognize by its bark, which features bark ridges that appear to have shiny stripes down the center. A few other oaks have bark with this kind of appearance in the upper tree, but the northern red oak is the only tree with the striping all the way down the trunk. The northern red oak is one of the most important oaks for timber production in North America. Quality red oak is of high value as lumber and veneer, while defective logs are used as firewood. Other related oaks are also cut and marketed as red oak, although their wood is not always of as high a quality. Quercus rubra is grown in parks and large gardens as a specimen tree.

Ohio Buckeye, *Aesculus glabra* - Also known as the horse chestnut, this tree played a role in the history of the American frontier and has become part of the cultural identity of people from Ohio. The first tree west of the Ohio River that was felled by a settler (in 1788) was said to have been a Buckeye. Carrying a Buckeye nut in one's pocket is said to bring good luck, and the tree has become so ingrained in Ohio folklore that both people from Ohio and the mascot of Ohio State University are Buckeyes. A native of the Midwestern and Great Plains states, trees found in the open may reach 60 feet tall by 30 feet wide, but as a native understory it is often half that size. As a member of the Horse chestnut Family, it is related to other Horse chestnuts and Buckeyes, including hybrids between the species.

Olive, *Olea europaea*, - A species of small tree or shrub in the family Oleaceae, found traditionally in the Mediterranean Basin.

The olive's fruit, also called an "olive", is of major agricultural importance in the Mediterranean region as the source of olive oil; it is one of the core ingredients in Middle Eastern and Mediterranean cuisines. Thousands of cultivars of the olive tree are known. Olive cultivars may be used primarily for oil, eating, or both. Olives cultivated for consumption are generally referred to as "table olives." About 80% of all harvested olives are turned into oil, while about 20% are used as table olives.

The olive tree, *Olea europaea*, is an evergreen tree or shrub native to Mediterranean Europe, Asia, and Africa. It is short and squat and rarely exceeds 8–15 m (25–50 ft) in height.

The fruit is a small drupe ½ to 1 inch long when ripe, thinner-fleshed and smaller in wild plants than in orchard cultivars. Olives are harvested in the green to purple stage.

Fossil evidence indicates the olive tree had its origins 20–40 million years ago in the Oligocene, in what now corresponds to Italy and the eastern Mediterranean Basin. Olive oil was originally used for lamp oil. Olive trees were planted in South America in 1560 and in North America around 1770.

Olive trees have significance in different cultures and religions throughout the world. The olive is considered a symbol of hope and peace. The expression "extend an olive branch" is an effort to reach a peaceful resolution to an issue. The United Nations flag shows a map of the world and two olive branches.

Palo Verde, *Parkinsonia* – An iconic desert tree native to the southwestern US and Mexico, named "green stick" for their photosynthetic green bark. The require full sun and excellent drainage and need minimal water once established. Palo Verde trees typically grow between 15 to 30 feet tall, with a broad, spreading canopy. Their branches are spindly and covered with tiny, pinnate leaves. In the spring, the Palo Verde bursts into a riot of color, producing masses of yellow blossoms. These flowers attract a variety of pollinators, including bees, butterflies, and birds. After flowering, the tree produces seed pods that serve as a vital food source for wildlife.

Pittosporum, *Pittosporum* – The nearly 200 species in the genus Pittosporum occur in tropical and subtropical regions of the world. Most of California's pittosporum are from Australia and New Zealand. They have attractive evergreen foliage, with a variety of shapes and sizes. The name pittosporum comes from the Greek words for pitch and spore – the seeds are embedded in a resinous, viscous fluid that helps them stick to birds and be dispersed over great distances. This attribute has helped pittosporum to become naturalized weeds in California and elsewhere.

Ponderosa Pine, *Pinus ponderosa* - Commonly known as the ponderosa pine, bull pine, blackjack pine, western yellow-pine, or filipinus pine, it is a very large evergreen tree native to mountainous regions of western North America. It is the most widely distributed pine species in North America and succeeds in a variety of habitats. There are five subspecies, which have different ranges and characteristics, but all grow in an erect form.

The Ponderosa Pine was first documented in modern science in 1826 in eastern Washington near present-day Spokane (of which it is the official city tree).

The fire cycle for ponderosa pine is 5 to 10 years, in which a natural ignition sparks a low-intensity fire. Low, once-a-decade fires are known to have helped specimens live for half a millennium or more. The tree has thick bark and its buds are protected by needles, allowing even some younger individuals to survive weaker fires. In addition to being adapted to dry, fire-affected areas, the species often appears on the edges of deserts as it is comparatively drought resistant, partly due to the ability to close its leaf pores. It can also draw some of its water from sandy soils. Despite being relatively widespread in the American West, it is intolerant of shade.

Privet (Ligustrum) - A privet is a flowering plant in the genus *Ligustrum*. The genus contains about 50 species of erect, deciduous or evergreen trees or shrubs. These medium-sized trees have a native distribution from Europe to tropical and subtropical Asia, and with one species each native to Australia and north Africa. Several species are considered invasive outside of their natural range.

They often have conspicuous heads of white flowers followed by black berries.
In addition to being cultivated to create ornamental hedges and foliage, privet is also widely used in horticulture and flower arrangements. The oval leaf privet *Ligustrum ovalifolium* is used for hedges, while its flexible twigs are sometimes used as cords for lashing. The tree species, especially Chinese privet is frequently used as a street tree in Europe, while other species including *Ligustrum japonicum* and *Ligustrum quihoui* are also sometimes used as ornamental plants in gardens.

Purple Leaf Plum, *Prunus cerasifera* - Also known as cherry plum, this tree is in the rose family. It is deciduous and grows up to 25 feet tall. In addition to purple foliage, the tree also produces small dark purple fruit. The fruit is sour and is often used in jams. Native to Southeast Europe and Asia. It is an ornamental tree with early flowering. Numerous cultivars have been developed.

Raywood Ash, *Fraxinus angustifolia* subsp. *oxycarpa* - Also known as claret ash, this is a cultivar of ash tree. The original seedling was discovered near a group of assorted ash trees in South Australia about 1910, and later grown at the nearby property. The tree was introduced to Britain in 1928 and to North America in 1956, although it did not become widely available there until 1979. The tree grows to around 40-60 feet (15–20 m) and has dark green leaves that turn to a dark claret in the autumn.

Red Maple, *Acer rubrum* – Deciduous maple species with leaves that turn red in Fall. See **Maple** for more information.

Saucer Magnolia, *Magnolia x soulangea* - First bred by French plantsman Étienne Soulange-Bodin (1774–1846), a retired cavalry officer in Napoleon's army, who liked the pretty pink flowers that emerge dramatically from its bare branches in spring. One variety 'Grace McDade" has blossoms that grow up to 14 inches across. Magnolia × soulangeana is notable for its ease of cultivation, and its relative tolerance to wind and alkaline soils (two vulnerabilities of many other magnolias).

Scarlet Oak, *Quercus coccinea* - The scarlet oak is a deciduous tree in the red oak section Lobatae of the genus Quercus, in the family Fagaceae. It is primarily distributed in the central and eastern United States. It occurs on dry, sandy, usually acidic soil. It is often an important canopy species in oak–heath forests.
The tree typically lives 80 years, grows to a height of 60-80 feet, with a spread of 40-50 feet at maturity. The tree provides brilliant red fall color that extends well into winter. It features leaves that are 4–7" long with 7 (rarely 9) narrow, bristle-tipped lobes separated by deep sinuses. Acorns are ½–1" in length and enclosed by a bowl-like, scaly cup. An especially large crop is produced every 3–5 years.
The scarlet oak develops an open crown, providing light shade, and grows in a rounded shape. Should not be planted in alkaline soil. Symbol of Washington, D.C.

Shamel Ash, *Fraxinus uhdei* - Also known as evergreen ash or tropical ash, shamel ash is a fast-growing tree that can reach heights of up to 80 feet, with a spread of up to 60 feet. The tree is notable for its showy leaves, which may be up to 11-inches long and lined with up to 9 leaflets. A native of Southern California and Mexico, it can tolerate brief periods of temperatures as low as 20 degrees Fahrenheit, though it may drop leaves or suffer some branch dieback. Shamel ash does best in full sunlight, though young specimens can tolerate some shade. An Ash tree by the name of Yggdrasil plays an important role in the Viking creation myth. Like the Vikings, the Gaels also thought of the ash tree (which they called uinsinn, pronounced ooshin) as protective. Of the five legendary guardian trees of Ireland, three were ash. Ash is also the second most popular tree growing beside Irish holy wells, and on the Isle of Man ash trees were said to protect the purity of springs.

Shumard Oak, Quercus *shumardii* - Also known as spotted oak, Schneck oak, Shumard red oak, or swamp red oak), it is one of the largest of the oak species in the red oak group. Shumard oak is native to the Atlantic coastal plain primarily from North Carolina to northern Florida and west to central Texas.
Mature Shumard oaks typically reach heights of 80 to 110 feet (25 to 35 m), trunk diameter is typically 2-3 feet (60 to 100 cm), and crown width typically reaches 40-60 feet (12 to 18 m) in width. Trunks are relatively straight and vertical. They can live up to 480 years of age. Fall colors are relatively late. Shumard oaks begin to bear seeds at a minimum of 25 years of age, and the optimum age for seed development is 50. Acorns take between 1.5 and 3.0 years to fully mature and may go unnoticed during their early stages of development. Shumard oak is valued for commercial use as lumber, as a shade tree, and as a food source for various birds and mammals. It can tolerate and thrive in a wide range of soil types and pH levels. It is drought-resistant and prefers partial to full sunlight.

Southern Blue Gum Eucalyptus, *Eucalyptus globulus* – This species of tall, evergreen tree is endemic to southeastern Australia. It has mostly smooth bark, juvenile leaves that are whitish and waxy on the lower surface, glossy green, lance-shaped adult leaves, glaucous (grayish-green in color, and sometimes having a light dusting of powder), ribbed flower buds arranged singly or in groups of three or seven, white flowers and woody fruit. There are four subspecies. Eucalyptus globulous was introduced to California in the mid-19th century, partly in response to the Southern Pacific Railroad's need for timber to make railroad ties and is prominent in many parks in San Francisco and throughout the state. Naturalists, ecologists, and the United States National Park Service consider it an invasive species due to its ability to quickly spread via seeds and displace native plant communities, although the United States Department of Agriculture does not list it among its "Invasive and Noxious plants" list in California. Local authorities, especially many fire departments across California, consider it to be a major fire hazard. Due to these factors, programs across the state of California have been established to remove all eucalyptus growth and restore native biomes in certain park areas, such as on Angel Island in San Francisco Bay, and in the hills of Oakland, California.

Southern Magnolia, *Magnolia grandiflora* - This tree is native to the southeastern United States, from southeastern North Carolina to central Florida, and west to East Texas. In its native habitat with abundant water and space, this tree will reach up to 90 feet tall. It is a truly magnificent tree, with large glossy dark green leaves and large white fragrant flowers. It is considered an evergreen, as the leaves die individually and fall off year-round. The tree produces large seed pods and has a large root system. Once fallen, the leaves remain intact and even harden as they dry out, instead of crumbling like most leaves do. Until 2018, a Southern Magnolia from Andrew Jackson's own garden at the Hermitage graced the grounds of the White House. It was the oldest tree on the White House grounds and was so famous that it was for decades pictured on the back of the $20 bill as part of a view of the South Front.

Sycamore, *Planatus racemosa* - Also called western sycamore, California sycamore, California plane tree and aliso (in Spanish). A much beloved shade tree native to riparian areas and wetlands in California and Baja California, this tree is prolific all over California and offers a dramatic change in autumn, when its large maple-like leaves fall. The American sycamore (Planatus occidentalis) has been crossed with the London plane tree (Planatus acerfolia) to create a tolerant, adaptable and beautiful street tree. Both types have bark that is an attractive patchwork of white, tawny beige, pinkish gray, and pale brown, with older bark becoming darker and peeling away. They are distinguishable from each other almost immediately by location, with California sycamores naturally growing only in wet areas and London plane trees almost exclusively planted in urban areas.

Tipuana Tipu, ***Tipuana tipu*** - Also known as tipa, rosewood and pride of Bolivia, this is a South American tree. It is the only member of the genus *Tipuana*. Growing up to 100 feet (30 m) in height and 65 feet (20 m) wide, Tipuana tipu is well known for its use as a shade tree. The flowers are bright yellow in color and bloom only briefly in late summer. It is a deciduous tree, annually shedding all or most of its leaves and large "helicopter" pods from midwinter to spring.

Tristania Laurina – see Water Gum

Tulip Poplar, *Liriodendron tulipifera* - Not related to the famous tulip flower, this tree is native to eastern North America and is the tallest eastern hardwood at an average of 160 feet, often with no branches for the first 80-100 feet, making it a very valuable timber tree. The flowers are erect, cup shaped and greenish-yellow (fading down to almost white). The tallest known specimen is 191 feet. The tree is quick growing without the problems of other fast-growing trees (i.e., weak wood and a shorter life). Tulip Poplars require a lot of sun.

Valley Oak, *Quercus lobata* – The Valley Oak is a native, deciduous, and grows into the largest of North American oaks. It is only found in California and grows in the interior valleys and foothills. It is one of the two oak species that form the iconic picture of California, with green or golden hills and magnificent sprawling trees (the other being the Coast/Interior Live Oak). Mature specimens may attain an age of up to 600 years. This beautiful oak is remnant of an earlier time in the Santa Clara Valley, when the surrounding hills and valley itself were covered with mighty oaks. When General Gaspar de Portola y Rovira explored New Spain (later California el Norte) in the 1770s, he traveled inland from the area that is now Morgan Hill, crossing Santa Clara Valley to be one of the first Europeans to see the San Francisco Bay. He noted how his men did not come out from under the shade of the magnificent Oak trees all day, so dense was their coverage. However, the Valley Oak has not prospered along with the rest of Santa Clara Valley. The Valley and Coast Live oaks were heavily harvested for wood and to clear land for farming and housing.

Water gum or kanooka tree, *Tristaniopsis laurina* - Native to Australia, Tristaniopsis laurina is cultivated as an ornamental. It is evergreen, can reach 25 feet in height, and is considered a good shade tree.

Western Redbud, *Cercis occidentalis* – This deciduous shrub or small tree is native to California, Arizona, and Utah. It grows up to 15 feet tall and wide and is drought tolerant. The tree has heart shaped leaves and showy flowers in spring.
The showy flowers develop in the spring and are bright pink or magenta, and grow in clusters all over the shrub, making the plant very colorful and noticeable in the landscape. The shrub bears 3-inch-long brown legume pods which are very thin and dry. The flowers that are popular with a variety of native bees, including leafcutter bees that like to eat the leaves.

White Alder, *Alnus rhombifolia* - White Alder is a member of the Birch family (Betulaceae) native to western North America, from Washington east to western Montana and south to San Diego County, occurring at altitudes of 100-2400 meters. It is a medium-sized deciduous tree growing to 50-80 feet (15-25 meters).
See Alder.

White Birch *Betula papyrifera* - Also known as paper birch and canoe birch, this is a short-lived species of birch native to northern North America. Paper birch is named for the tree's thin white bark, which often peels in paper like layers from the trunk. Paper birch is typically a short-lived species. It handles heat and humidity poorly and may live only 30 years in warmer areas, while trees in colder-climate regions can grow for more than 100 years. It is a medium-sized deciduous tree typically reaching 60 feet (20 m) tall. It will grow in many soil types, from steep rocky outcrops to flat muskegs of the boreal forest. Best growth occurs in deeper, well drained to dry soils, depending on the location.
The flowers are wind-pollinated catkins. Paper birch is monoecious, meaning that one plant has both male and female flowers. The fruit matures in the fall and is composed of numerous tiny winged seeds packed between the catkin bracts. They drop between September and spring. Paper birch is often one of the first species to colonize a burned area within the northern latitudes. The wood is often used for pulpwood and firewood.