



Redwood Barn Nursery

1607 Fifth Street Davis, California

A Stroll Through Tree History

As you stroll through older neighborhoods, take a moment to look up. Much of the charm and ambience is provided by the large trees that form a canopy above you.

Many of the trees providing shade, cooling the pavement, reducing the sun's glare, and making healthier air, were planted way back when those neighborhoods were first built.

Davis, Woodland, and Winters have many trees that were planted in the early part of the 20th century. Here and there even older trees remain.

What are our historical trees?

When European immigrants came to the Sacramento Valley in large numbers at the time of the Gold Rush, they found enormous oaks, Western sycamores, and cottonwood trees. There were California black walnuts, and in our region stream willows along the creeks, and Valley oaks.

“When New York Tribune correspondent and author Bayard Taylor passed through in 1850, he reported that Sacramento’s ‘original forest trees, standing in all parts of the town, give it a very picturesque appearance. Many of the streets are lined with oaks and sycamores, six feet in diameter, and spreading ample boughs on every side.’”

Unfortunately, the newcomers often destroyed those grand old trees by cutting them down or due to fires.

“By 1854 Sacramento had become the state capital, and roaring conflagrations had destroyed even more of its original giant sycamores. The fast-growing native cottonwoods planted in their place were unleashing drifts of irksome white silky down from their seed pods that snagged and littered, clumping up on sidewalks and streets.”¹

Fortunately, tree plantings began in earnest wherever new homes were built. New residents planted the familiar elms, oaks, ash, and maple trees they knew from back east, all of which flourished here with adequate water. Our native black walnuts were joined by English walnuts as well as hybrids.

Do trees live hundreds of years?

Some species can. But drought, flooding, increased heat, and encroachment by housing and farming take their toll. Some of the oldest and biggest trees locally:

- Some we know the exact age: the Shakespeare Oak in City Park in Woodland is a Valley oak that was planted by the Woodland Shakespeare Club in 1916.
- A Paradox walnut, a hybrid (English walnut crossed with black walnut) created by Luther Burbank, was donated to Woodland by Burbank and planted on Arbor Day in 1925 at the corner of Oak and Walnut Streets, also at City Park.² We have our own grand specimen of Paradox walnut here in Davis at the Lutheran Church on E. 8th Street, probably planted around 1950.

¹ Urban Forests, Jill Jonnes. Penguin Books, 2016

² <https://www.cityofwoodland.org/1189/Landmark-Trees>



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Paradox has been used as a rootstock for English walnut (some walnut orchards use Paradox rootstock; others use regular black walnut rootstock) and occasionally the rootstock overtakes the top. An enormous Paradox walnut on my farm likely originated that way from the 1920s.

- Ages of other trees can be estimated: two Valley oaks shown on the Tree Davis Great Tree Search³ are at least 380 years old.

The grand old trees that you see in older neighborhoods are likely several decades to a century old. College Park, the lovely leaf-shrouded neighborhood directly across from the entrance to UC Davis on Russell Boulevard, was established in 1923 (outside the city limits at the time) and many of the older trees in that neighborhood were probably planted then.

Where did the elms go?

Most of elms, alas, died out from Dutch elm disease in most parts of the U.S., and removed due to elm leaf beetle in our area, in the 20th century. I remember a few great tall specimens in downtown Davis in the 1970s and 80s. At least one great American elm, probably a century old, remains on Third Street in Woodland.

Good news for elm lovers: several generations of tree scientists have worked to select and develop new, disease- and beetle-resistant elm varieties suitable for urban tree plantings. Performance trials include a site at UC Davis and several of these new elms have become available at nurseries.⁴ Elms are returning to America's cities.

Elm alternatives

Zelkovas, which are in the elm family but don't share the disease and pest issues, were often planted as substitutes, starting in the 1940s when the elms began to die out. They are the trees shading Elmwood Drive in Davis.

Also in the 40's, Chinese elms (*Ulmus parvifolia*), resistant to the pest and the disease, became popular especially in Southern California. Drake elm is a very graceful, spreading form of the Chinese elm. *Ulmus parvifolia* has become an important parent in hybridizing new resistant varieties.

Sometimes great trees are destroyed by mismanagement. Black walnuts were planted along Russell Boulevard in Davis (then Lincoln Highway, US 40) by the LaRue family around 1876.⁵ The trees were topped a hundred years later, began to decline, and have gradually been removed. A few black walnuts have been replanted among the older ones, and over the last two years Tree Davis has planted a hundred oak trees of four species, from Highway 113 all the way to the city's edge, to provide a new tree canopy along Russell Boulevard for future generations.

³ <https://www.treedavis.org/programs/great-tree-search/>

⁴ http://climateredytrees.ucdavis.edu/wp-content/uploads/2017/09/AUF_National-Elm-Trial-2017.pdf

⁵ https://localwiki.org/davis/Avenue_of_Trees



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What are the old tree species that are still with us?

A spate of tree plantings in the late 19th and early 20th centuries provided the canopies of trees that shelter our oldest neighborhoods now.

Sycamores and plane trees, ash, Chinese pistache, and walnut trees were widely planted decades ago. An interesting addition to the area tree population occurred after WWII when many cork oaks were planted in the late 1940s on and off the UCD campus. There are excellent examples on Olive Drive in Davis, on the Quad on campus, and here and there throughout older neighborhoods in both Woodland and Davis. Cork oak, an evergreen species native to Portugal, is well adapted to our region as it is tolerant of drought, able to subsist solely on our winter rainfall once established.

London planetree is the most widely planted tree still around in large numbers in Davis, Woodland and Winters. An inventory of the city trees of Davis showed London planetree makes up the highest percentage of Davis trees in numbers and species importance value (a measure which includes the leaf area). Our native Valley oak is second in that measure, followed by coast redwood, Chinese pistache, and Chinese and European hackberries. Chinese pistache is a significant part of the canopy of older neighborhoods in Valley towns and provides much of our fall color.

Some other widely planted trees include crape myrtles, and locally and a little surprisingly, Canary Island pines. For some reason these upright pines with the drooping needles were planted a lot, especially in east Davis, in the 1960s. They've done very well since Canary Island's climate is like ours. Another horticultural import from those lovely islands off the coast of Morocco is the Canary Island date palm, that monstrous palm you see around old farmhouses.

Improved varieties

Diseases and nuisance factors sometimes show up when a species is widely planted. Planetrees from the original hybrid get mildew and anthracnose blight on the leaves, causing significant leaf drop in spring. Resistant varieties such as 'Columbia' have been introduced. The fruit litter and reseeding of Chinese pistache are obviated by the popularity of 'Keith Davey', a male cultivar which has the added attraction of bright red fall color. A new pistache hybrid called 'Red Push' is becoming available as well which could help with species diversity.

More brilliant fall color comes from the lovely ginkgo tree. Many decades ago, *Ginkgo biloba* was grown from seed and heavily planted in the eastern U.S. (there are several thousand in Washington D.C. alone). Ginkgo trees are dioecious (separate sexes), so half of those trees produce fruit that contains butyric acid. One article describes this as having "the scent of rancid butter," which is one of the more charitable descriptions.

Ginkgo trees are impervious to pests and diseases and can live hundreds of years, growing slowly to enormous size, but with female trees dropping putrid fruit, their greatest threat is from an axe or chain saw. Make sure the tree you plant is a grafted male cultivar.

There have been some unfortunate choices in tree plantings.



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Chinese tallow trees and Calleryana pears, planted in large numbers in the 1970s and 80s, proved problematic and are no longer recommended, nor are the varieties of ash trees that have come along over the years (Modesto, Moraine, Raywood ash). Those each have problems, and now with the Emerald ash borer moving inexorably toward us (found in Oregon in July 2022, evidently established there), ash trees are no longer recommended at all. They do make up a lot of the tree canopy in some neighborhoods, and some have lovely fall color. Planning to replace the ash trees in Sacramento Valley cities should be happening now.

Coast redwoods, popularized by Dr. Elliot Weier for whom the redwood grove in the UC arboretum is named, were widely planted from the 1940s and are especially common in neighborhoods from the 1970's and 80's when selected cultivars were introduced. Unfortunately, Coast redwood is not drought tolerant even when mature, and thus isn't suited to our hot interior climate without summer irrigation. Trees in parks near irrigated turf are doing okay, but when lawn watering stops a lot of redwoods are dying after several years of drought. Deodar cedars and the native Incense cedar are better conifer choices for us going forward.

Planting for the future

Adaptability to climate change is a key factor in selecting trees to plant. The goal is a mix of species capable of growing and thriving despite greater extremes of drought, heat, and flooding.

Davis and Woodland maintain lists of Landmark Trees: outstanding specimens identified for age, size, historic value, or being of a unique species.

The City of Woodland has honored Landmark Trees and preserves their history here:

<https://www.cityofwoodland.org/1189/Landmark-Trees>

The City of Davis keeps a roster of Landmark Trees and Trees of Significance here:

<https://www.cityofdavis.org/home/showpublisheddocument/3244/637740329754600000>

Tree Davis maintains a map showing significant trees in both cities, and in Winters, here:

<https://www.treedavis.org/tree-map/>



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The London planetree (*Platanus x acerifolia*) is thought to be a cross between the Old World plane and the American plane trees that occurred as a natural hybrid, a couple of hundred years ago, when they were growing near each other. Exceptional pollution tolerance has made it a common city street tree everywhere, and they can achieve great size and age. New varieties are very disease resistant.



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Chinese pistache (*Pistacia chinensis*) has the most prominent fall color in the Valley. Seedling-grown trees vary from yellow through orange and red and purple.

The male variety of Chinese pistache called 'Keith Davey' is bright red (and fruitless). A new hybrid pistache called Red Push features colorful spring growth as well as fall color.



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Another tree popular for fall color is *Ginkgo biloba*, the Maidenhair tree. The soft green leaves turn golden yellow and make very elegant compost. Ginkgo trees are very tolerant of a wide range of growing conditions.



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Our native Valley oaks (*Quercus lobata*) are some of the biggest, oldest trees in our area. Planted in your landscape, they can grow moderately fast and eventually attain great size.



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Many species of oaks, such as this Shumardi oak, are well adapted here for drought and heat tolerance.



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Many species of oaks, such as this London oak (*Quercus robur*), are well adapted here for drought and heat tolerance. Just keep in mind that they grow to be very large trees.



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Canary Island pine (*Pinus canariensis*), shown here growing unirrigated along the interstate, had proven quite well adapted to our hot, dry climate.