Spring, 2013; Vol. 3, No.1

Soils in Eugene/Springfield and How They Affect Tree Growth

By Whitey Lueck

Most landowners who raise crops—whether the crop is timber, filbert trees, strawberries, or grass seed—are familiar with the site's soil type(s) and the capability of the site for producing crop A or crop B. This is because not all soils are created equal. Some soils here in the upper Willamette Valley can grow almost anything. But most soils have some limiting characteristic that prevents them from being suitable for one crop or another.

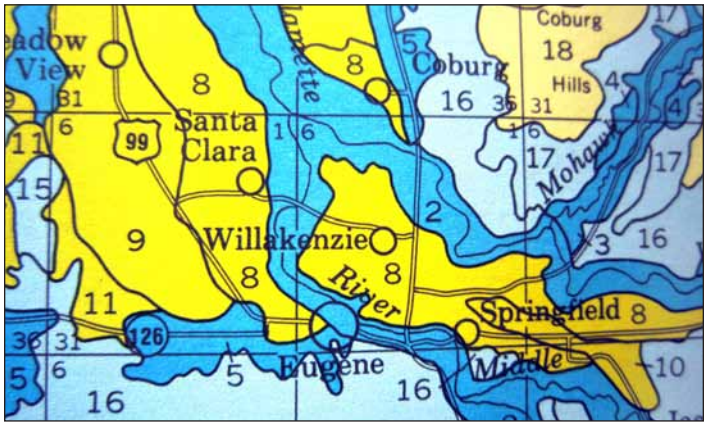
In urban areas and elsewhere, when we are choosing what trees to plant along our streets or in our yards, we also need to be attentive to the site's soil type, to ensure that the trees we plant will thrive.

Farmers and timberland owners typically consult with soil scientists from the Soil Conservation Service—an agency of the U. S. Department of Agriculture. Homeowners, tree-planting organizations, and others have the right to consult with SCS staff, too, but seldom do. Instead, most people take a hit-or-miss approach. If they happen to live on a more "all-purpose" soil type, of course, anything will grow well. But if their soil is limited in any way due to its natural characteristics, there could be problems.

How Different Soils Are Distinguished

Most soils are composed of three different sizes of particles. From large to small, those particles are sand, silt, and clay. Soils with a greater percentage of large particles tend to drain well, and those in which small particles dominate are poorly drained. This makes sense, if you think about it. Say you have two small cylinders, one filled with dried beans and one filled with talcum powder. If you pour water into the top of the cylinder containing the beans, it moves down through the beans quickly via the large air spaces between adjacent beans. But water moves very slowly, if at all, through the powder that packs tightly and lacks air spaces between the particles.

Another distinction among soils is their provenance, or where they came from and how they developed. In the Eugene-Springfield area, we happen to have three very different soil types. On the valley floor, in the vicinity of large watercourses such as the Willamette and McKenzie rivers, we find soils that came here from somewhere else—mostly



A close-up of the Soil Conservation Service's "General Soil Map" showing river soils (2, 8, 9), hill soils (16, 17, 18), and wetland soils (5).

the West Cascades—during past floods. These soils are somewhat variable, but for the most part they are deep and well drained. (On scattered sites with a lot of sand or river cobble, however, the soil is excessively drained or "droughty" because there aren't enough *small* soil particles to keep water from flowing right down through the soil to the water table.)

Most of the soil on the hills developed on-site from the weathering of the bedrock that underlies the site. Some of the hill soils in our area are weathered basalt—e.g., Skinner Butte in downtown Eugene. Others are weathered sedimentary rock that formed from ancient marine sediments laid down when the land here was beneath the Pacific Ocean. Soils on the hills are relatively shallow—you don't have to dig down very far before hitting bedrock—and fairly well drained, due in part to the sloping topography of the hills themselves.

The third general soil type we find in this area occurs some places on the valley floor—typically at the bases of hills—and also in basin-like areas in the hills themselves. This soil consists largely of volcanic ash that arrived here by air some 7,700 years ago during eruptions of Mt. Mazama, the enormous volcano whose collapsed remains form Crater Lake. The volcanic ash presumably covered most of this area for decades or centuries following the volcano's final eruptions, but over time, it eroded off the surrounding hills.

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Director's Corner

Our long beautiful spring has begun. The days are getting longer, buds are bulging and bursting, and good smells are in the air.

FOT has really taken off this planting season. We've had several awesome plantings and tree care events with great volunteers and community support. Dozens of people have approached us to say how excited they are to learn that FOT's programs—formerly only in Portland—are now in this area.

Last fall we launched our online store for trees, and each planting this year has followed the full Friends of Trees community forestry model. Since fall, Jeff Lanza, our planting manager, neighborhood volunteers, and I have gone door to door talking to people about trees and signing people up to get trees for their planting strips or yards. We are expanding outreach to every section of Eugene and Springfield. More and more FOT trees are appearing in ambassador roles along our streets, generating interest and excitement that has begun to snowball. Clearly there is a need for community forestry in Eugene and Springfield. As I write this, we've just finished canvassing Springfield neighborhoods for the first time. The response was positive and the interest in trees huge.

FOT's fantastic volunteers make everything we do possible. Over the next year we will be engaging more and more volunteers in leadership roles. In June, we will train our second group of Summer Inspectors to check on each tree we plant, monitor their success over time, and help new tree recipients learn to care for their trees. In July, we will train our second wave of Neighborhood Coordinators. In the fall, we will have two more crew leader trainings. This next set of trainings will give FOT a critical mass of volunteer leaders and much greater capacity to plant and care for more trees.

We got our new chapter rolling with substantial foundation funding, and we are moving rapidly to make our funding base sustainable, and to balance our earned and unearned funding. In the last year we have increased our earned funding. We thank City of Eugene Parks and Open Space, City of Eugene Neighborhood Services, City of Eugene Sustainability Office, City of Springfield, EWEB, and Willamalane Park and Recreation District for their support.

I am deeply grateful to the increasing number of individual donors recognized in this issue. We are thankful for our wonderful business sponsors Mountain Rose Herbs, Journey Tree Financial Planning and Investments, and Sperry Tree Care. Generous foundation support from REI has helped support our tree care events and our work to improve local natural areas and parks.

I am particularly proud of FOT's effort to improve the siting, design, and species selection of our trees. I have volunteered planting trees in Eugene since the late 1980s, starting as a weekend volunteer in my early 20s, who knew little about trees or their appropriate planting. Twenty-five years later, I can walk in any direction from FOT's office downtown and see trees I helped plant that are in conflict with power lines and sidewalks, and causing problems that could have been avoided. Everywhere I go in our metro area I see trees in conflict with development and hardscape. Part of this problem is changing our approach to development and changing our practices and expectations to conform to the needs of trees, instead of forcing trees to conform to bad design and poorly executed development. But the part I can immediately affect is planting appropriate trees in sites where they have the best chance to reach their fullest potential. This means not planting large trees in small planting strips or under power lines. And it means avoiding trees that come from areas that receive summer rainfall that will suffer in our summer dry climate. FOT is the only group I know of in our region that is systematically improving our tree lists and changing the trees we offer to take these considerations and soil conditions into account. We are initiating dialogue and interviewing tree experts of all types, and modifying our offerings in response. We have instituted a rigorous monitoring program to follow the trees we plant over the long-term. We are seeking to source trees as locally as possible and with the best provenance possible. We are working on major improvements to our tree lists and our online ordering system for 2013-2014.

Special thanks to Helen Liu for producing the newsletter and to Whitey Lueck for editing it. I'm grateful to Aaron Lesan for profiling canyon live oak in this issue. We are lucky to have Mr. Lueck's soil piece as a resource for our community to make better decisions on siting trees. Whitey's work on Eugene soils and trees has already been incorporated in the City of Eugene's Approved Street Tree List and shapes FOT's local tree offerings.

FOT's job is to support, facilitate, and recognize your great work as volunteers to plant, monitor, research, and care for our urban trees and greenspaces. We are striving for the healthiest possible urban forest, cared for by knowledgeable, skilled, and motivated stewards. Please tell us how we can get better. And thanks so much for all your work and support.

Erik Burke

Erik Burke
Friends of Trees, Eugene Director

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On most of the valley floor, it was moved out of the area (or perhaps covered) by extensive flooding of local rivers that has occurred during the millennia since the eruptions.

Soils derived from volcanic ash are found primarily at the bases or toe-slopes of hills—in a doughnut-like ring around the lower slopes of Skinner Butte, for example—and in basins within or near the hills that have been unaffected by the flooding of the Willamette River, such as the Amazon Park area in Eugene. Additionally, there is a large area of this soil type in west Eugene, bounded roughly by highway 126 on the south and Greenhill Road on the west.

Because this type of soil is composed of such small airborne particles, it is very poorly drained. Most years, it is waterlogged from November through May or June, with standing water in many places. During the summer drought, the soil turns brick-hard and develops broad cracks in it, as the clay-like particles have what is called a high shrink-swell capacity.

In our area, although undisturbed soils of this type support a rich and diverse plant and animal community, they are much maligned by gardeners, as most of the plants that we humans like to cultivate—from petunias and tomatoes, to rhododendrons and maple trees—are native to better drained soils and languish or die when planted in poorly drained soils. But these soils are not "bad"; they are simply poorly drained.

Soil Classification

In their Soil Survey of Lane County (1987), soil scientists with the SCS identify more than a hundred different soil types. Even their map of "*general* soil types" still has 22 different soils listed.

In an effort to simplify soil classification and make the information more accessible to the general public in the Eugene-Springfield area, I developed in the 1990s a system composed of just three major soil types or classes, as outlined above. And because the SCS uses Roman numerals to designate eight different "capability classes"—which indicate the suitability of soils for the cultivation of field crops (Class I soils having few limitations to restrict their use and Class VIII having so many limitations as to nearly preclude their use for commercial crop production)—I elected to use capital letters to designate the different soil classes. So Class A soils are "river soils"; Class B soils are "hill soils"; and Class C soils are "wetland soils" (see chart).

SOIL CLASSES OF EUGENE-SPRINGFIELD

	Class A River Soil	**Class B** Hill Soil	**Class C** Wetland Soil
Provenance	Flood-borne and mostly from the West Cascades	Weathering of subsurface bedrock	Airborne ash from Mt. Mazama eruptions
Characteristics	Deep, fertile, well drained loam (in most places); moles common	Relatively shallow and fairly well drained (due in part to topography)	Poorly drained, with standing water common in winter; dry, cracked, and brick-hard in summer; moles absent
Signature native trees			
broad-leafed trees	bigleaf maple	Oregon white oak	Oregon ash
conifers	Douglas-fir	Douglas-fir	valley ponderosa pine

Class A Soils

Since most of the first Euro-American settlers here in the upper Willamette Valley in the mid-1800s were farmers—who settled on the best soils for the cultivation of crops—the downtowns and older neighborhoods of both Eugene and Springfield sit atop some of the best soil in North America: deep, fertile, well drained Class A soil known to soil scientists as Malabon Silt Loam. Even during the wettest periods of the winter, one seldom sees standing water on these sites.

Good places to see the natural biotic communities supported by such soils include the Alton Baker Park

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woodlands north of the Autzen/Frohnmayer footbridge in Eugene and the woodlands at Dorris Ranch in Springfield. An upper canopy of bigleaf maple, Douglas-fir, and grand fir—sometimes single-species woodlands, sometimes mixed—shades a rich understory of deciduous shrubs such as Indian–plum and vine maple, plus herbaceous plants or "wildflowers".

On sites within this zone that are excessively drained due to the presence of a lot of river cobble and/or sand, more drought-tolerant native trees such as incense-cedar, ponderosa pine, madrone, and Oregon white oak predominate, and the understory is less lush than on loamier soils.

Class B Soils

On hill soils, conifer forests predominate these days—largely of Douglas-fir, but sometimes including valley ponderosa pine, grand fir, and incense-cedar. But before 1850 and the cessation of annual burning of the local landscape by area aborigines, a savanna landscape of widely scattered oaks (both Oregon white and California black) and a few conifers cloaked these hills. These days, shrubs in the forest undercanopy are mostly western hazel, vine maple, and low Oregon-grape. Sword ferns and herbaceous plants such as white trillium and vancouveria are, in places, quite common.

Whitey Lueck

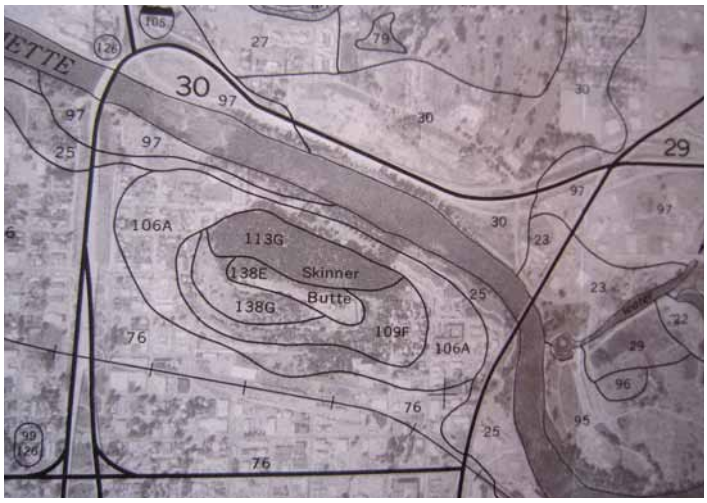
Good examples of largely pristine Class B or hill soils include the forested part of Hendricks Park, most of Masonic Cemetery, and Spencer Butte Park.

Street-side sweetgums of similar age growing on Class C soil (top left) and Class B soil (lower left). Note the exposed roots and sidewalk/curb problems on the Class C (wetland) soil, where the roots of all trees are at or barely below the soil surface.

Class C Soils

Most Class C or wetland soils were largely treeless before 1850—due once again to the frequent human-set fires that swept across the valley floor and up into the surrounding hills. But in the absence of those fires, trees moved in on many sites—mostly Oregon ash and Douglas hawthorn, with occasional valley ponderosa pine and Oregon white oak in areas that are slightly less waterlogged in winter.

Local examples of woodlands on Class C soils include the ash groves at Amazon Park, and the Willow Creek Nature Conservancy site near 18th and Bertelsen.



Close-up of the SCS's detailed soil map for downtown Eugene, showing the "doughnut" of poorly drained soil (106A) around the base of Skinner Butte.

Determining Soil Type

Once one is familiar with the three major soil classes in this area—A, B, and C—it is easy to determine soil type simply by looking at a neighborhood's existing trees. If you're on or near the valley floor, and the site supports an abundance of large, luxuriant trees—especially bigleaf maple and Douglas-fir—and you seldom see the roots of streetside trees pushing up curbs or sidewalks, then you're on Class A or river soil. (Of course, if you're visiting in mid-winter and see no standing water anywhere, that's a good sign, too!)

When on or near the valley floor where Douglas-firs and bigleaf maples are conspicuously absent or growing very poorly—and the roots of many trees are at or near the surface and pushing up sidewalks, curbs, and driveways—you're on Class C or wetland soil. In mid-winter, lawns in these areas are squishy and often have pools of standing water.

And, of course, if you're on a hilly site, well that's easy: it must be Class B or hill soil. Unless grades have been changed due to construction or soil compacted by heavy machinery, you should never see standing water in these areas.

Choosing Trees Based on Soil Type

When it comes to choosing trees for the three different soil types, you can be confident that pretty much any tree—both native and non-native—will thrive on Class A soils, except in pockets where the soil is excessively drained, or in linear post-flood drainage channels where poorly drained clay is found.

On Class B soils, limiting factors are soil depth—since bedrock is sometimes very near the surface—and droughtiness in the summer, especially on south-facing slopes. Most trees, both native and non-native, will thrive here, especially if provided with supplemental irrigation. But if summer water is not available, you need to shrink your palette of suitable trees somewhat and focus more on native trees, or non-native trees that come from regions that, like ours, have a summer drought.

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Class C soils are the most limiting when it comes to tree growth. On non-irrigated sites, trees must withstand both the waterlogged soils of winter as well as the concrete-like soils of summer, after the soil has dried out. And one must understand and accept that the roots of every tree on these soils will be right at the surface, so there are sure to be problems if we (ahem!) place our concrete and asphalt too close to them. Also, it's not worth amending these soils to make them better suited for a larger variety of trees. For an "upland" tree to be able to mature on Class C or "lowland" soils would require countless cubic yards of soil and/or a drainage system. It's more sensible to choose a tree that is appropriate for Class C soils, rather than try to "improve" the soil. Again, nothing is "wrong" with these soils; they are simply poorly drained.

Since Class C soils are the most limiting for tree growth, the list of appropriate species is necessarily short. Very few trees can tolerate both the winter-wet and summer-dry nature of these soils. Oregon ash, green ash, pin oak, and sweetgum are some of the best; but tupelo, European hornbeam, London plane, elms, and red horse-chestnuts are fairly tolerant, too. If one is able to provide some summer irrigation, the list can be expanded to include other (non-native) ashes, red maple, and catalpa. The only native conifer suited to Class C soils is valley ponderosa pine. Non-native conifers—that will thrive only if provided with some summer water—include most spruces, as well as baldcypress and dawn redwood, both of which are deciduous.

A Final Note

With a little practice, anyone can learn to distinguish the three different soil classes in the Eugene-Springfield area, just by looking at a site's topography, its apparent drainage, and the existing vegetation in the vicinity. But be aware that changes in grade, construction practices that are abusive to native soils, and outright removal of soil and "replacement" with rock or rubble all will affect future tree growth. If in doubt about a soil's class or its condition, it's always best to be on the safe side by choosing a tree from the "short list" of trees suitable for Class C soils.

Whitey Lueck is a horticulturist and naturalist, and an instructor with the University of Oregon's Department of Landscape Architecture.

Trees for the 21st Century

By Erik Burke

The times they are a-changing both for people and for trees. Humans are changing the earth's climate, and many of the trees we plant in our cities are unlikely to fare well in these changing conditions. It is not clear how climate will change in western Oregon. It is very likely that there will be significant changes in temperature and precipitation, with temperature perhaps rising over the next 40-50 years so that temperature in Eugene-Springfield is similar to areas to areas in northern California like Sacramento. Changes in precipitation are less clear, as is whether we will see radical changes in ocean currents or the eastern Pacific high pressure system that gives us our annual summer drought. Cities like Chicago are changing the trees they plant in public areas, replacing the trees they have been planting with trees from warmer climates around 500 miles south.

Coast live oak, *Quercus agrifolia*

To begin to address these issues, on September 14th of last year, FOT organized two talks on the topic of "Trees for Eugene-Springfield's 21st Century Urban Forest." Kris Day (FOT Portland staff) and Jim Gersbach (FOT Portland volunteer) gave presentations on their work to identify drought-tolerant trees that thrive in our area, plant them, and monitor their success over time. Kris and Jim are part of a Portland-based project called Tomorrow's Urban Forest (TUF), the goal of which is to develop a better understanding of which species of trees are likely to thrive and which are likely to struggle in the Willamette Valley given a warmer and possibly drier future climate. Erik Burke of FOT's Eugene chapter presented an initial tree list developed locally to guide species selection. This discussion of trees for the 21st century is not solely about climate-resilient trees. But it is also about shifting the approach to planting trees from an emphasis on ornament and profit, to planting trees that are more resilient and locally adapted and provide more ecological services than many currently planted species.

A major factor for tree selection in our area is our annual summer drought. Significant rainfall rarely occurs locally from late May through mid-September, limiting which trees thrive here without irrigation. Yet most of the trees in public spaces in our area are selected from areas that receive much of their annual precipitation during the growing sea-

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Trees for the 21st Century

son, such as Eugene's most common street tree, the red maple.

Chinese pistache, *Pistacia chinensis*

Most discussion about climate change is ahistorical. While there is not space here, a future article will discuss western Oregon climate history and how this might affect our responses to climate change. Our climate history and current climate have several implications for selecting trees that are likely to thrive in the 21st century in our metro area. Tree assemblages of the warm period from 6-10,000 years ago, such as Oregon white oak, valley ponderosa pine, and incense-cedar are likely to be particularly suited to our area in the 21st century. Trees from northern California are likely to be heat- and drought tolerant in our area. Trees from regions with similar summer-dry climate patterns to ours are more likely to thrive in our area than trees from summer-wet areas. This means that the best regions to choose trees from that are likely to thrive in our cities are western North America, southern Europe, north Africa, southwestern Australia, and south-central South America.

Given these facts, FOT's Eugene chapter developed a provisional three-tier list of trees that we think are likely to be resilient to climate change and tolerate heat and drought well, to help prioritize planting efforts. Tier One trees are top priority to plant. They are heat- and drought-tolerant trees that we can plant now, trees already on local approved street tree lists. Of the more than 100 trees on local approved lists, we found 16 trees that we feel are climate resilient, but only 4 that we can source and receive easy approval to plant locally. These are Oregon white oak, silver linden, red horsechestnut, and European hornbeam. FOT has made major strides at increasing planting of Oregon white oak on Eugene streets. Other Tier One trees are conifers that local municipalities currently inexplicably prohibit—such as Atlas cedar, incense-cedar, giant sequoia, Himalayan cedar, valley ponderosa pine, and Douglas-fir—or limit their planting to rare 20-foot planting strips. Several additional Tier One trees are difficult or impossible to source currently, such as sawtooth oak, Hungarian oak, Shumard oak, and burr oak.

Tier Two trees are trees that are used as street trees in urban areas in the western U.S. with success, and are likely to thrive here, but are not on current local approved street tree lists. These include Oregon natives such as California black oak, canyon live oak, Oregon-myrtle, and California natives such as coast live oak, interior live oak, blue oak, and valley oak. Other Tier Two species include chitalpa, crape-myrtle, cork oak, holly oak, silverleaf oak, oracle oak, cedar-of-Lebanon, Spanish fir, Chinese pistache, strawberry-tree, and southern live oak.

Tier Three trees are trees that are rarely or not used as street trees but are heat and drought tolerant and good candidates for experimentation in our area. These include California buckeye, madrone, Japanese chinkapin, Cretan maple, western redbud, and roble beech.

Inspired by FOT's talks in September 2012, the City of Eugene Sustainability Office funded two efforts to expand the use of climate resilient trees in Eugene and create working examples. The Sustainability Office provided funding to FOT to purchase and offer several Tier Two trees in FOT's neighborhood tree program, and conduct outreach and education efforts about these trees. FOT is currently offering California black oak, valley oak, coast live oak, interior live oak, blue oak, and Chinese pistache. Please let us know if you are interested in planting one of these trees in your planting strip or yard. The first of these trees in this program were planted at our 2/9/13 planting in Friendly Neighborhood. In the 2013-2014 planting season, FOT will increase Tier Two offerings, adding holly oak, cork oak, canyon live oak, California buckeye, and crape-myrtle. On February 24th, an arboretum of "climate trees" was planted by the city contractor in the parking lot of Sheldon High School.

Tier Two trees have been difficult or impossible to source at a reasonable price until now, and there has been little or no local demand for them. FOT is working to improve both the supply of these Tier One and Tier Two trees, and to increase the demand for them through education, outreach, and incentives. To increase supply, FOT is talking with nurseries about the potential of these trees, and working on agreements with nurseries to grow the trees locally from appropriate seed sources, while minimizing cost and risk to the nurseries.

FOT is also working to identify the provenance or source of all the trees we offer, and to identify appropriate provenance for seed and nursery stock for future trees. The long-term solution to the problem of provenance is to produce trees in local nurseries from diverse, known, and well-sourced provenances. FOT has purchased liners (small trees) of several species and is collaborating with a local nursery to begin growing trees native to southwest Oregon and California for street trees in Eugene and Springfield.

We play God with every tree we plant. This imbues our work with responsibility. We are working hard to offer trees that are grown locally with know provenance, are adapted to our climate and soils, and that are sited so they can provide beauty and benefits for generations. With your help, FOT can increase local demand for trees that will thrive in the long run in our cities, and build a strong base of skilled, informed consumers, producers, and stewards who will tend our trees into the future.

Canyon Live Oak

By Aaron Lesan

When the subject is oak trees in Oregon, many of us are bound to think of the most familiar ones, like Oregon white oak *(Quercus garryana)* or California black oak *(Quercus kelloggii)*. The Oregon white oak was once the dominant broad-leafed tree in the Willamette Valley, and oak savannas could be found from the base of the Coast Range to the Cascades. But in southwestern Oregon lives another native oak species that gets less recognition than its more abundant cousins: the canyon live oak *(Quercus chrysolepis)*.

Courtesy of American Forests and the Wildlands Conservancy

The wonder is that we can see these trees and not wonder more. —Emerson

The canyon live oak is found from Oregon south to Arizona and thrives in a variety of soil types and microclimates. It is the most widely distributed oak in California, where its range stretches from the Coast Range to the west slope of the Sierras. In fact, it is reportedly found in nearly every forest type in California, including mixed-evergreen, mixed-conifer, and oak woodland. Because of its ability to tolerate drought, this tree is even found in the arid chaparral communities of Arizona and Baja California.

Also known as the golden cup oak—because of the color of its acorn cap, or cup—*Quercus chrysolepis* is an evergreen tree with large, spreading, horizontal branches and a broad, rounded crown. It grows to 90 feet in height and its trunk ranges in diameter from two to four feet. The elliptical or oblong leaves are one to three inches in length. Although the leaves appear generally flat, their margins (which may be slightly turned under) typically have spiny teeth, especially on young twigs. The leathery leaves are a glossy dark green above, with a lower surface of a dull golden color. The bark of the canyon live oak is light gray and is rather smooth or sometimes scaly. The acorns occur solitarily or in pairs, and are one to two inches in length, oval in shape (turban-like), with a shallow, thick cup of scales densely covered with golden-yellow hairs.

Besides being a remarkably adaptable species, the canyon live oak is also one of the most morphologically variable oaks in North America. In open areas the crown is dense, wide-spreading, and reaches nearly to the ground; but in closed stands the crown is smaller in diameter and concentrated in the top half of the tree, making it more like a shrub. The tree can even grow into dense thickets on mountain slopes and the tops of ridges. Generally, the deeper the soil, the bigger it grows—and it can grow quite large.

The American Forests National Champion canyon live oak, located near Springville, California, is a whopping 9.15 feet in diameter, with a height of about 70 feet, and with an average crown spread of an astounding 121 feet (see photo). Given the right conditions, these trees can be magnificent to behold.

In Oregon, the canyon live oak seldom reaches such a size, but there are a few individual trees that are noteworthy. One tree is a rare (well, for the Portland area) *Quercus chrysolepis* with a unique story.

Back in the 1920s, a Danish-American named Thomas J. Autzen , who was an early pioneer in the plywood manufacturing industry, brought a young canyon live oak from California on a flat-bed truck and planted it at his home in the Alameda neighborhood of Portland. Since then, the tree that Mr. Autzen so admired that he saw fit to transport it such a great distance has grown into a beautiful example of the species, its sturdy branches creating a crown 90 feet across, atop a trunk that is 3.5 feet in diameter. It can be viewed from the street at 2425 NE Alameda in Portland.

The tree is one of the many amazing trees in Portland's Heritage Tree Program. The program, started in 1994, was developed to recognize and designate trees that, because of their age, size, type, historical association or horticultural value, are of special importance to the city. When you visit their website, consider uploading an application to your phone called PDX Trees. It allows you to map and visit the 280-plus Heritage Trees in the Portland area. The program is a great way to preserve and admire these trees, including the canyon live oak at the Thomas J. Autzen home.

If this name seems familiar, it's because Mr. Autzen (1888-1958) is also the founder of the family-run philanthropic foundation known as the Autzen Foundation. And although he was a graduate of Oregon State University, his foundation provided the largest single donation to support the construction of...you guessed it, Autzen Stadium. It turns out that his son, Thomas E. Autzen, who carried on the foundation, was a University of Oregon alumnus.

Aaron Lesan is an Oregon native who volunteers his time to help preserve our natural environment. He lives in Corvallis with his wife and two children.

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Mike & Wendy Russo
Ron & Mary Jo Schmaedick
Barbara Schomaker
Everett Smith
Randy Smith
Janell E. Sorensen
Nancy Sorensen
Bruce & Janice Stark
Terry J. Steiner
Milton Takei
Jack & Anne Turner
Alvin Urquhart
Pat Vallerand
Minna Van Tilburg
Josephine Von Hippel
Louise Wade
Tom & Dale Wall
Doris R Wimber
Jan Wulling
Jennifer & Mark Wyld
Eva Zack

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Blue Dog Mead
Buck's Sanitary Service
Cameron McCarthy Landscape Architecture and Planning
City of Eugene Neighborhood Services
Cozmic Pizza
Doak Creek Native Plant Nursery
Dougherty Landscape Architects, Inc.
Eugene Water and Electric Board
Journey Tree Financial Planning and Investments
Kyle King Tree Service
McCartney Tree Surgery
Mountain Rose Herbs
NurseryNet NW Inc.
Penske Truck Rental
Sperry Tree Care Co.
Track Town Pizza
Union Pacific Foundation
United Way of Lane County
Willamalane Park and Recreation District


Sorina Harwell