

SUFA E-News Summer 2023



Welcome to the Spring 2023 issue of the Sunnyvale Urban Forest Advocates (SUFA) newsletter. This quarterly newsletter will keep you informed about how you can participate in SUFA's efforts to increase the tree canopy in Sunnyvale through education, tree plantings, and advocacy.



Family-Friendly Serra Park Tree Walk

Calling all families with kids ages 5-10! It's time to unplug your devices! Put on your walking shoes and hat, bring your enthusiasm, and get ready to learn about trees through SUFA's inaugural family-friendly tree walk at Serra Park.

Family Friendly Tree Walk

When: Saturday, September 16
Time: 11am -12pm
Where: Serra Park,
730 The Dalles;
Meet at the Park Building

During the tree walk, we'll focus on 7 beautiful trees, learning fun facts about them and sharing their benefits. Included in the walk will be the coast redwood, the strawberry tree, and the scarlet oak. There will be child-focused activities all along the way.

"I speak for the trees, for the trees have no tongues."
The Lorax

Advocacy Coordinator Needed

Our urban forest in Sunnyvale is in great need of a Lorax - actually, a volunteer Advocacy Coordinator. This position would involve speaking during the public commentary periods at City Council and Planning Commission meetings on behalf of Sunnyvale's urban forest. A long-term goal would be to develop a team of volunteers to take on this task as well as to advocate to businesses for the preservation and addition of trees on their property.

If you would like more information or would like to volunteer please contact us at info@sunnyvaletrees.org.

Some Oak Trees Have a Lot of Gall!

**Pictured: Red cone gall (left);
oak apple gall (right)**



On our 2022 Ponderosa Park tree walk, we noticed a special growth on the leaf of a Valley Oak. While recognizing the red, Hershey Kiss-shaped growth as a gall, we didn't know what kind. A bit of research determined that it was a red cone gall (courtesy of the *Andricus kingi* wasp).

Galls are formed when a wasp deposits one egg and hormones on a leaf or branch of a tree. The hormones affect the growth cells on the leaf or branch, which then grows a protective cover for the egg. Once the egg hatches, the larva releases a compound that causes the host plant to produce a gall of a specific size, shape, and color. The gall grows around the larva until it hatches. The mature wasp will emerge from the gall when it is ready and will spend its one-week lifetime reproducing.

There are at least 200 species of the Cynipid wasp family in California that are responsible for most oak galls. Each wasp lays its eggs on a specific type of tree and each wasp forms a different type of gall. Galls vary in size from large to tiny, in shape from balls to small discs, and in color from brown to red.

The most recognizable gall is the oak apple gall, which also grows on Valley Oak trees. The oak apple gall is shaped like an apple and is formed by the *Andricus californicus* wasp.

While they may look odd, galls are harmless to the host plant and are part of a healthy ecosystem. Not only do the galls provide a home and food for a developing wasp, but other insects may use the gall as shelter or may burrow into the gall to eat the wasp larva.

Oak galls have been used as a source of dyes and inks for hundreds of years. It is believed that Vincent van Gogh used oak apple gall ink.

When you see an interesting growth on a plant, it may have been formed by a wasp. Take a close look at your neighborhood oaks to see what might be happening right above you.

Tree on the Street Interview: The Camphor

We continue our series featuring common Sunnyvale street trees with information about the trees presented in an interview format. These are trees you'll see as you walk or bike through Sunnyvale neighborhoods or parks.

SUFA: Thank you for being willing to be interviewed by Sunnyvale Urban Forest Advocates. First, can I get your full name?

Camphor: Sure. My name is *Cinnamomum camphora* – *Cinnamomum* comes from the Greek word 'kinnamomum' meaning, you guessed it! – cinnamon and *camphora* is also Greek and comes from 'kamfora', the ancient name for our species.

SUFA: So, you're the tree that provides us with cinnamon!

Camphor: Nope. The tree responsible for cinnamon powder and bark is my cousin – *Cinnamomum zeylanicum*. Humph! You look disappointed. Please know that my leaves and wood have a myriad of uses as well.

SUFA: Sorry. Please share with us.

Camphor: Ah! Happy to. Camphor leaves and wood and distillations of them have been used by you humans for a very, very long time. Marco Polo recorded their use by the Chinese in the 13th century. Camphor is used as a culinary spice, in incense, as an insect repellent, and as an ingredient in smokeless gun powder, lacquer, and celluloid. Medicinally, camphor is used in topical pain relief, relief of skin irritation, and relief of congestion - think Vicks Vapo-Rub.

SUFA: Wow! An impressive array of uses. What about your wood?

Camphor: I'm proud to say that our wood is highly prized for several reasons, especially among wood workers. It's very hard, has red and yellow striping, and the camphor oil makes it resistant to insects.

SUFA: And what are your roots?

Camphor: We hail from Japan, China, and Taiwan. Some us in Japan are thousands of years old and of immense size and are therefore considered sacred. Outside of Asia, we can be found on every continent except Antarctica and were first introduced in the American South in 1875.



Continued on next page

SUFA: You're among the many camphor trees here in Washington Park. All of you seem seem huge to me. Your canopy is amazing!

Camphor: Indeed! We camphors are known for being very shady. That's "shady" in a good way, of course.

SUFA: Of course. Well...lastly, we always ask our tree interviewees what makes them a good tree for the urban forest. What would you say?

Camphor: Well, full disclosure here so as not to be "shady" in the bad way. We don't make very good street trees as our roots are shallow and our trunks can get very big and...sigh...we drop a lot of berries. But we can be the pride of the parks for our great size and beauty and especially our deep, cooling shade – more important than ever with increasing urban heat.

SUFA: Indeed. Any last words for our readers?

Camphor: Yes. If I might quote Nelson Henderson, one of your wiser humans: "The true meaning of life is to plant trees, under whose shade you do not expect to sit". Thanks for letting me share.

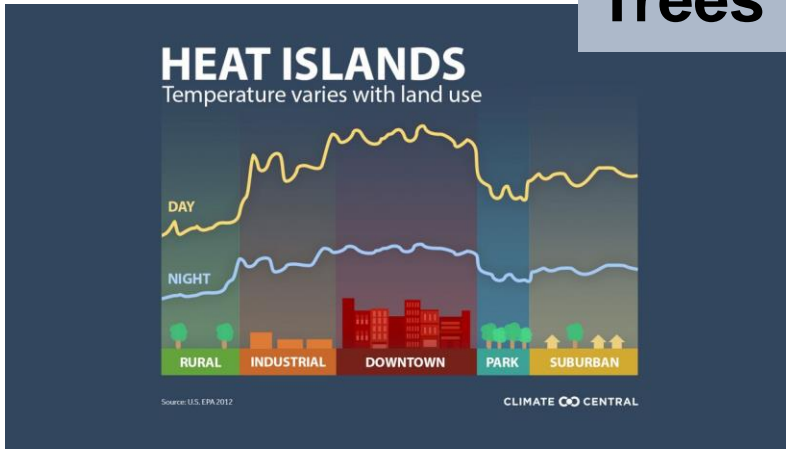
The Camphor is the Official City Tree of Hiroshima



Trees provide us, of course, with some very measurable benefits - food, wood, O₂, shade, and medicines to name a few. But trees also provide us with intangible benefits. Beauty comes first to mind but also, hope and resilience. Camphor trees are among the 160 "survivor trees" designated by the City of Hiroshima in Japan that were within 1.3 miles of the center of the atomic blast that destroyed the city.

These survivor trees lost most or all of their aerial parts but regrew from their roots - the camphor trees being among the quickest to regenerate. All the surviving trees symbolize resilience, recovery, and healing for Hiroshima, Japan, and the world. Pictured above is a camphor tree at the Shirakami shrine located only 1600 feet from the center of the atomic blast.

Trees Versus Urban Heat



Excessive heat has been in the news throughout this summer. It has affected millions in the United States, Europe, and around the globe. Harder hit are urban areas. Buildings, cars, asphalt, and concrete all work together to create the urban heat island effect where the temperature in cities is higher than surrounding rural areas.

Excessive heat has been in the news throughout this summer. It has affected millions in the United States, Europe, and around the globe. Harder hit are urban areas. Buildings, cars, asphalt, and concrete all work together to create the urban heat island effect where the temperature in cities is higher than surrounding rural areas. And heat kills more people every year in the U. S. than any other weather-related event including tornadoes, hurricanes, and flooding. Who are the stationary superheroes in fighting this heat. Trees, of course! And here are their superpowers...

- 1. Trees help with evapotranspiration:** Evaporation is the process of transferring moisture from the earth into the atmosphere. Trees absorb water through their roots and release it via their leaves when hit by solar rays. This process reduces temperatures by taking heat from the air and using it to evaporate the water.
- 2. Trees reduce energy use:** Deciduous trees planted near buildings that shade windows, walls, and roofs reduce the amount of solar energy absorbed by a building. This in turn reduces the use of fans and air conditioning - saving energy and reducing the amount of waste heat sent back into the atmosphere.
- 3. Trees reduce energy use:** Deciduous trees planted near buildings that shade windows, walls, and roofs reduce the amount of solar energy absorbed by a building. This in turn reduces the use of fans and air conditioning - saving energy and reducing the amount of waste heat sent back into the atmosphere.

And Here's Yet Another Superpower of Trees!

Last winter's rain in California reminded us of our vulnerability in urban areas to flooding. Again, trees are critical in cities because of their abilities to manage stormwater (see the graphic on the following page).

In addition to planting trees on your property, here are some other suggestions to make your property more resilient to the effects of heavy rain. You can turn your front and back yards into one enormous bio-sponge that accommodates however much rainfall we get.

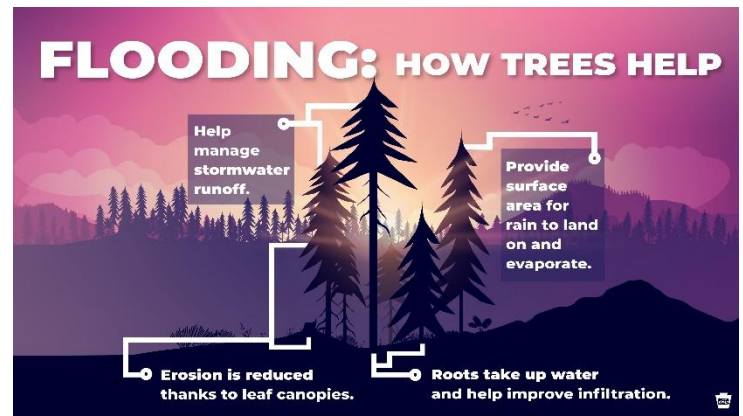
Continued on next page

•Install a natural rainwater harvesting system. Direct your downspouts to a rain garden. Installation of rain gardens are but one one of the possible rainwater capture and water saving projects for which the Santa Clara Valley Water District offers rebates.

<https://www.valleywater.org/saving-water/rebates-surveys/landscape-rebates>

Rain gardens prevent flooding, filter out pollutants, and help recharge groundwater..

Because rain gardens capture and hold rainwater, allowing it to slowly infiltrate the ground, they retain moisture and require little or no watering during our long dry season.



•Consider planting trees, shrubs, and flowers that are native to our area. They will not only absorb winter rains and then thrive in summer drought conditions, they will also create habitat for a wide variety of birds and insects.

•Lastly, if re-paving your driveway or paths, consider permeable options to add water to the water table rather than allowing it to flow into the sewer system.

SUFA in the Community

In July, SUFA gave a talk on the urban forest at the Sunnyvale Senior Center. Topics covered included: what is the urban forest, what native and non-native trees are common in Sunnyvale, and how to help increase our urban forest. The talk was followed by our first tree walk at the Community Center.



Also in July, twenty participants joined SUFA on our Edible Tree Walk. During the one-mile walk, we saw and learned about over forty plants that contain edible parts. We started our walk under a huge avocado tree, moved on to black walnut, magnolia, peach, olive, fig, grape, acacia, lemon, apple, sunflower, gooseberry, and peppers, among others.