



MEMBER NEWS

Improving San Diego's quality of life through proper tree care.

SEPTEMBER 2020

27537 Commerce Center Drive, #107 | Temecula, CA 92590

PTCA GENERAL MEETINGS

October General Meeting: Trees for Health

The COVID-19 health crisis has had a significant impact on our San Diego County community. As a result, the PTCA had to curtail its regular efforts for educational programs earlier this year. We would like to continue our mission with educational events. All of this is dependent on changing restrictions to keep us all safe. So, keep in mind that everything is subject to change.

Our main concern for resuming these events is the universal safety of ourselves, our families, and our fellow citizens. Our second goal is to continue to offer meaningful educational opportunities that will qualify for CEU credits to satisfy any need for maintaining professional certifications. This is especially important this year with our abbreviated seminar. Dr. Matt Ritter left me with two take-aways from his seminar presentation. Tree ID is important, as is being able to assess the general health of a tree in its location.

October Meeting

Tuesday, October 6 @ 5:30 pm

On October 6th, Dan Simpson will meet for a tree walk at the 'Trees for Health' Area of Balboa Park. This is at the end of the Quince Street offramp. This is the one-way intersection of Balboa Drive and Quince St., near Quince St. and 6th Ave.

The City of San Diego COVID Safety Compliance requires we wear face covers/masks, wash hands, avoid physical contact, and maintain physical distances. Please register through the website so that we do not need to use a CEU sign-up sheet.



Monthly Meeting Details

Date: Tuesday, October 6

Location: 'Trees for Health' Area
Balboa Park
Quince St. & 6th Ave
San Diego, CA

Cost: Free for Members

Register: www.ptcasandiego.org

**General Meeting
5:30 PM**

Scheduled Topics
Trees for Health
Dan Simpson

**Register
Online**
www.ptcasandiego.org

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Pomegranate
(*Punica granatum*)

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INDUSTRY NEWS

2020 ISA Annual Conference Update - Going Virtual

ISA has made the difficult decision to cancel our in-person 2020 ISA Annual International Conference and Trade Show slated for 15-17 December 2020. The safety and well-being of our attendees, members, employees, partners and vendors remains our top priority. This decision was made due to recent developments in COVID-19 cases, the restrictions placed by public health officials on large gatherings through 2020 in Albuquerque, New Mexico, and the overall climate surrounding travel and meetings.

We want to take this time to thank the ISA Rocky Mountain Chapter for their leadership throughout the entire planning process. The members of the Conference Planning Committee were prepared to host an exceptional conference and we cannot thank them enough for their insights and efforts.

While we are disappointed we will not be able to meet in person this year, we are excited to announce that ISA is working towards a virtual experience where attendees

will have the opportunity to earn continuing education units, listen to Keynote Speakers, engage with presentations and presenters, and network with their peers from the comfort of their homes. ISA plans on making this event accessible on a global scale reflecting our international community, and we look forward to sharing more information in the coming weeks on how to participate in this virtual experience.

ISA thanks all of its members, attendees, and partners for their continued support and enthusiasm for this event, and we look forward to meeting virtually this year, and in-person as soon as we are able to do so safely. Learn more about the 2020 conference by visiting www.isa-arbor.com.



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About the PTCA of San Diego

OUR MISSION is to improve our community's quality of life by making our urban forest safer and more beautiful through education and proper tree care.



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EDUCATIONAL MEETINGS are held on the first Tuesday of each month. During the summer months, arboricultural tours ("Tree Walks") are featured throughout San Diego County.

We are in the process of selecting a new meeting location. Until a permanent venue has been chosen, we will meet at Filippi's Pizza Grotto (Scripps Ranch), located at 9969 Mira Mesa Blvd, San Diego.

The cost to attend general meetings is \$25 for members, \$30 for non-members. Summer Tree Walks are free of charge.

Information for upcoming meetings is available at our website at www.ptcasandiego.org, and in our monthly newsletter.

CEUs are available!

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PTCA ANNUAL SEMINAR & FIELD DAY is held every August, featuring industry experts bringing the latest research and information to San Diego's historic Balboa Park. Cosponsored by the Professional Tree Care Association of San Diego and City of San Diego Parks and Recreation Department, this is your best local opportunity to get information or training in your field of tree care.

Have an event for our calendar?

Submit it to:

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PTCA MEMBER HIGHLIGHT

September PTCA Member Highlight: Joseph Eves, Coastal Tree Care

The PTCA has started a new section in our newsletter highlighting members and their contributions to the community and industry. If you or someone you know would like to be featured in the monthly newsletter, please contact Heather Crippen at heather@epicentermgmt.us.

Name: Joseph Eves

Company: Coastal Tree Care

Joseph Eves got his start working for a small owner/operator tree service before starting at Coastal Tree Care in 2012. He had always been passionate about anything outdoors and related to Nature and the environment, so tree care was really a perfect fit.

At Coastal, Joseph assists in daily operations but primarily focuses on strategy, growth, and culture. He is very excited about CTC's 2021 goal to transition to a more sustainable approach to servicing trees. Their efforts will align with San Diego's new and upcoming emissions regulations, and are in line with the general direction of the tree care industry.

Joseph's most memorable "teachable" moments typically involve team building, camaraderie and engagement. Coastal always pushes its team members to invest in themselves through education and training. These are all things Joseph has learned from mentors in the industry, and what he is excited to pass on to others.



*Joseph Eves and the Team at Coastal Tree Care.
Photo Courtesy: Joseph Eves*

When asked about his biggest piece of safety advice, Joseph said, "Safety is paramount in our industry. I believe that having a safety program in place that engages everyone on the team is vital to the success of any organization in the arboriculture space. This includes a rhythm of weekly safety meetings, quarterly training and education opportunities." We couldn't agree more.

Thanks, Joseph!

To learn more about Coastal Tree Care, visit their website at coastaltreecare.com.

PTCA GENERAL UPDATES

The PTCA Is Officially a 501c5!

IT IS OFFICIAL! The PTCA has received FEDERAL approval as a tax exempt 501c5 entity. This is an important step for our organization. Over the years people and processes changed and schedules were missed. We have been tax exempt and up to date with state requirements but the federal process had lapsed. An amended state filing still needs to be sent in. This conforms to our fiscal budget period of July – June rather than on a calendar year.

This Federal tax-exempt status is just one important step in filing a federal return. The other step was to have a correct EIN or Employer Identification Number. Every box checked and numbers matched and scheduled tasks kept and ... and ... and ... ad nauseum! For those who have been handling this chaos over the years, it is easy to see how it all went awry. We also need to complete paperwork to maintain legal status for the raffles and prizes that we all enjoyed at the annual seminar. Federal forms are required for everything and in order to maintain transparency and legality they are necessary. Plus there is always a FEDERAL hand that needs some form of payment.

All of this lengthy legal and administrative activity did not happen overnight. For years, it has been rumbling along like a big delivery truck in the night. Somehow it gets to where it needs to be and delivery is made. The drivers often rotated shifts and office dispatch sent endless emails into cyber space. Curses were mumbled and prayers offered by the many who participated. The PTCA has been blessed with folks who care about the organization and its future. Many thanks to Jim as the lead driver and Rose as the central dispatch. They created order out of chaos. Many back pats to the duty drivers and loaders. Christmas has arrived 3 months early. YAY!

Welcome, PTCA New Members 2020

Brian Butler

- Green Horizons Landscape & Maintenance, Inc.
- Escondido, CA

Butch Everett

- Tree Life Consulting, LLC
- Fallbrook, CA

Jeff Taylor

- ArborWorks Inc.
- Oakhurst, CA

Jim Call

- San Diego, CA

Jonathan Caceres

- Everthrive Landscape, Inc.
- Riverside, CA

JR Sundberg

- RECON Environmental, Inc.
- San Diego, CA

Kirk Hinshaw

- Great Scott Tree Service, Inc.
- Mission Viejo, CA

Michael Schoenfeld

- San Diego Arbor Care
- Pine Valley, CA

Pedro Berry

- Angel's Tree Care
- Santee, CA

Randahl Schreck

- San Marcos, CA

PTCA GENERAL UPDATES

So Long Friends, And Thanks For All The Fun

Dan Simpson

To my fellow tree people and PTCA members, it is time for me to step back from active service. I wish to say so long and thanks for all the support. It has been a long strange trip to this point. I have come to understand that I am more of a caregiver than I realize. I have been happy to be of service. Over the many years of my association with the PTCA, I know I got much more than I gave. How did I get here?

Once upon a time, I thought I wanted to learn and know more about my career field. I had no final destination in mind. I just wanted to be more competent in my work with trees. I had started at the San Diego Zoo in 1971 as a gardener/tree trimmer. I was barely competent by today's standard. But I had a good attitude and demonstrated a commitment to hard work. Someone thought I had potential and hired me. I learned on the job. It's like they say, "When the student is ready, the teacher appears".

I took a few classes at Mesa College in the late 1970's. I remember Jack Maloney as a fellow student in the tree and horticulture classes taught by Leo Levesque and Bob Mazalewski. Over the years I learned and pondered my errors and corrections. I became knowledgeable and more proficient at tree work. I knew I would get old and have to stop climbing trees. I knew I needed to plan ahead.

In the mid 80's, I sought to validate my knowledge with the Western Chapter's newly launched Arborist Certificate. I did not pass on my first attempt. Just because you think you know it, does not mean you own it. That's what the exam is for, to validate what you think you know. The failure of one domain caused a retake in 3 domains. My second attempt resulted in becoming Certified Arborist number 571. As I came to learn, this only started me on a longer path to learning about a broader range of tree related subjects.

I became interested in the PTCA when they started their seminars in the early 1990's. My presence at monthly meetings

led to my being offered a position on their Board of Directors. Then I was asked by Brad Monroe at Cuyamaca College if I might be interested in teaching their arboriculture class. I thought I could do that. I could earn and learn. A good plan I thought. I stumbled at first but I learned. Just ask Dave Ephron and Pete Ryken, who were there in the first class of the spring semester in 1994. I taught tree classes there for 20 years. Back in 1971, I never saw that in my future.



Cheers, Dan!

My point here is that there will always be opportunities for professional growth and development. The PTCA is an excellent example of an organization to become involved with and grow a future. Many of the founders of the PTCA are still around. They had a dream and made it reality. There was no magic wand, just persistent effort and hard work. They are available as mentors to support you when you seek assistance and guidance. I can assure anyone who asks that you will certainly benefit from being of service.

So yes, this is a recruiting pitch but it is also a challenge. If you step forward, you may stumble but you will not be ridiculed or cursed. You will make friends and professional colleagues in an important industry. They will always be part of you and your future. These are some of the long term benefits that are not seen in the beginning. "There is no future but that which you make."

So it takes time and effort to become that old guy relaxing under the shade tree. Interested applicants please contact any of the senior PTCA members.

Opportunity is knocking!

PTCA GENERAL UPDATES

September Tree Walk Recap

The PTCA recognizes that the lengthy COVID Crisis has had an impact on the ability to earn CEU's for recertification. With that in mind, Dan Simpson is attempting to create opportunities for our members to obtain critical units for recertification. He will be stepping back from his role on the Education Committee and is seeking someone to assume that responsibility. It's a learn-on-the-job position and an important function for our organization. If you want to learn more about trees, the best way to do that is to get involved. You never know how far it can take you!

September 1 Tree Walk in Pepper Grove Picnic Area Recap

Conditions have improved to where we are able to resume some functions. What better way to do this than with a tree walk in Balboa Park, one of the crown jewels of the City of San Diego Parks. I selected Pepper Grove as our walk site. On my preliminary exploration there I saw some great examples of trees being impacted by human interactions and some unusual

tree species to talk about. Working through Epicenter we got approved for 1.5 CEU's with WCISA and set up online registration to reduce the typical clipboard sign in. Easy Peasy!

We had a total of ten folks who were able to attend. Masked and spaced like true COVID combatants, we looked at a new tree species not widely seen around San Diego. The *Peltophorum pterocarpum* is also called the Yellow Poinciana due to its wide spread and bright yellow blossoms. It is native to Southeastern Africa. The largest specimen we looked at had a circumference of 68 inches and had already reached full mature size.

One note of interest on its location is that it is growing on the site previously occupied, years ago, by a large *Erythrina caffra* that was listed in the California Big Tree Register. There are some other big specimens of this species located around Morley Field. I am interested in measuring those to see if we can locate a potential big tree. I emailed Dr. Ritter with some

September Tree Walk Recap

questions and learned there is a simple process for determining the latitude and longitude. It seems that our cell phones can use google maps to drop a pin and get the exact coordinates to mark the locations of potential champions. This may make it easier to identify future candidates for the state register. The nomination forms are available from the big tree website.

As you can tell, the primary tree species in Pepper Grove Picnic area is the Pepper Tree. Both the California Pepper, *Schinus molle*, and the Brazilian Pepper, *Schinus terebinthifolius*, are represented there. We have a third species of pepper tree in San Diego but it is not here, possibly due to its thorns.

The California Pepper is actually from Peru and is not a native but entered California during the mission era. There was a group of 10 *S. molle* planted at the San Luis Rey Mission in 1830. There is one tree left and it does look its age. The main part of the Pepper grove is a fairly dense planting of pepper trees and produces much shade. As a result, there is obvious compaction from foot traffic and the soil is dry, so many trees have raised roots. The foliage shows reasonably good size and color. But there are a few in obvious decline. Any of the larger trees would be good candidates for a workshop on pruning.

The canopies are densely branched and contain a lot of dead branches. We discussed the challenges of shaping and removing the crossover limbs without removing the limbs that support key parts of the canopy. Add to that the large, slowly closing cuts from past pruning, the occasional trunk cavities and a few emerging fungi we had lots to notice and discuss. The fungi we saw was *Ganoderma applanatum* aka the Artist Conk due to its white surface that is like a blank slate for drawing on.

At the farthest back of the grove is a large Brazilian Pepper tree that looks large enough to be the one I recall as listed in the state register. It was obviously in severe decline with over half of the canopy dead. The vegetative growth aka suckers from the roots appeared to be distorted and blackened so possibly it had been sprayed with an herbicide. We did not take a measurement of trunk size.

We saw a fine example of a *Ficus watkinsiana* also known as the nipple fig because of the protruding ostiole at the base of the fig. Most fig ostioles do not protrude beyond the surface so this is a key identification feature. The large Coast oak nearby had lost a large scaffold limb at the trunk. The newer shoots on the main trunk were vigorous but the size of the injury will take many years to close. Time will tell about decay entry.

Our next species were the *Ginkgo biloba* which provide lovely fall color in our area. Several locations were mentioned. Gingko are more popular in California's more temperate urban areas like San Francisco. A word of caution the female ginkgo trees are not popular because of the odiferous nature of the ripe fruit. It can be a challenge to determine gender of the small specimens.

Saving the best and most interesting for our final tree, we saw the young Wollemi pines planted just past the ginkgo. These are *Wollemia nobilis* and not pines, but members of the Araucariaceae family. As we discussed they bring to mind the Bunya-Bunya and Monkey Puzzle trees which are also in that

family. This tree species was known only from fossil records dated at 200 million years ago. In 1994 several small stands were discovered in steep sandstone gorges in the Wollemi Nation Park, northwest of Sydney, Australia. The wild population totals about 100 trees among three isolated groups. I think that there are many more than that now in cultivation. The IUCN red list shows it is considered a highly endangered species. This is based on limited range and small populations. Seed harvest is done by helicopter and gets tricky in the tight quarters.

The actual location of these rare trees is a closely held secret but it appears that unauthorized visitors may have trekked to the area and brought in a soil fungus on their boots. This is a problem since these trees are highly susceptible to *Phytophthora cinnamomi* which was identified as being present there in 2005. The major brush fires in Australia have posed a risk but so far these have been protected. The Wollemi Pines can reach a height over 100 feet with a columnar form but they achieve a canopy spread of only about 12 feet. Once the side limbs produce their male or female cones the branch stops growing, declines and dies. Only the future will show us what they can do here since they can live for over 100 years.

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"We had a great response to our first webinar event and we really appreciate the participation of our great vendors and our loyal and appreciative membership."

In response to the COVID challenge, the PTCA created a virtual seminar that was different from past events. The attendance requirement is as simple as before. Park yourself and pay attention. I did so and must say it was easier than past experiences at annual seminars. Refreshments were on me and my personal bathroom was never crowded. The only thing missing was the face time with colleagues and reminiscing over the past. Perhaps if this happens again we may have something to address that.

All in all I found the seminar very enjoyable. Dr. Ritter never fails to educate and provoke thoughts on trees. I think the idea of future urban forest species is timely. We as professionals are seeing decline in the native tree species that have long been an anchor for our urban forest. When we consider species as replacements, what are our choices?

Dr. Ritter shared some of his research results with us on what we can expect to see in the future. Forest development takes time and with his comment on climate chaos and the impact it has, we now know what we can expect. Choice of species for future planting will be key to creating and maintaining our future urban forests. As always a great presentation and a new way to look at the trees around us.

Dr. Hoddle shared some new insights into the South American Palm Weevil. The primary host plant, our once common *Phoenix canariensis*, has been severely impacted. There was a quick chronological review of how it all started and then where we are with current research. New thoughts based on current research and data review have led to new types of traps. In fact, during our September tree walk in Balboa Park's Pepper Grove we saw one of the older units hanging in a pepper tree with no nearby date palms, just as suggested from last years talk. We are lucky to have such focused effort on preserving some of the *Phoenix* which have been in California since the early years of the mission era.

Scott Paul of Taylor Guitars shared the efforts of Taylor Guitars who are recreating tree resources around the world. Taylor Guitars is a manufacturer of musical instruments based in El Cajon. I thoroughly enjoyed the background into the wood resource development they are performing. I was especially surprised to hear about the potential of our Shamel Ash as a source of tonal wood for guitar construction. African ebony wood and its forests has been devastated

-Alden Pedersen, PTCA Seminar & Field Day Committee

by global demand for decades. Now there is a community based effort at restoration and a future economic resource for indigenous peoples.

Dr. John Ball was very entertaining and informative with his personal stories of tree workers and the injuries that can be incurred. As always a photo is worth a thousand words, even if they are graphic. Dr. Ball elaborated on the reasons for the Z-133 updates based on casualty reports across the nation. This presentation seemed to me to be a great training aid. Anyone who seeks to reduce injury potential could likely use this to get their staff to seriously consider the cause and effect of daily lapses in safety.

I personally enjoyed the seminar online and for a first attempt at technology, I think the PTCA made it a great event. I look forward to seeing what happens next year.

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Small Tree with Large Appeal: the Pomegranate

This January, the PTCA will conduct its 12th Annual Fruit Tree Workshop at the Stein Family Farm in National City. I am proud to say I have attended and added to my knowledge of fruit trees. One fruit tree species that I worked on last year and I think is not widely considered for local use is the Pomegranate. It has an interesting history and appealing potential, so I thought I would share what I have learned in my research. The Pomegranate, *Punica granatum*, formerly in the *Punicaceae* family, is now listed in the *Lythraceae* family with *Lagerstroemia*. FYI the word *punica* is not derived from the Punic Wars in ancient history. The name of the pomegranate is from medieval Latin *pomum* for apple and *granatum* for seeded. Other names in history were *pomme-grenade* and *Apple of Grenada*. The French term for pomegranate is *grenade* and is used in the military for the item referred to as a grenade.

The pomegranate is listed as native to Iran and the Himalayas but it is an ancient plant species with enormous food value. This may be why it has long been part of the Mediterranean landscape and has supported human migrations around the world. In fact, this species is reported to have arrived in Spanish California in 1769 during the start of the Mission era. They are well suited to arid climates around the world and are grown commercially in our San Joaquin Valley as well as other areas throughout the southwest. Longevity of the pomegranate is up to 150 years and there are said to be several over 200 years old in the Middle East. I recall seeing two specimens in Las Vegas that were over 100 years old.

Most often the pomegranate is grown as a large shrub but with a growth rate of 24 inches a year, they can easily be developed into a small tree. I have been surprised to see what I thought was a distant apple tree with lovely red fruit, become a nice pomegranate tree when I got a closer look. They can grow to a height of 25-30 feet with a spread to about 15 feet. I think the multi-stemmed specimens are just as interesting as a single trunk and offer a wide shade pattern. The deciduous foliage is linear shaped, about 1 inch wide by 4 inches long and turns yellow in the fall. The large flowers appear in the spring and are a bright red orange and visually attractive. These are followed in early Fall by a firm fruit up to 3 inches in diameter that turns a dark red as it matures. I find that I need to watch them closely and select mine before they are gnawed into by rodents. As soon as they get close to a mature size, I begin checking the fruit closely. The fruit weight can cause the upright stems to bend downward so I thin out the fruits as they mature and provide some wire support hooks between stems. Be warned they do have some spines among their foliage. I wear gloves and move slowly to avoid sudden surprises. The spines are easier to see after leaves fall and you can shape as needed for future espalier



or visual screens.

This fruit producing species is worth considering as a screen or visual barrier and for its ability to adapt to a wide range of soils. Minor pests of note are white fly and ants which will lead to sooty mold. Be careful to not confuse the yellow leaves of fall as a symptom of chlorosis. The pomegranate is rather drought tolerant and will handle partial shade as well. Often it is hard to find plant species that will handle partial shade settings on northsides of building so this is one to consider.

This is a species that does support wildlife so if you are looking to add to a backyard habitat this is a good candidate.

Other things to consider: low potential for root damage and good fire resistance.

So that wraps up the landscape uses for pomegranate but it does not really begin to share all of its significance to humans. Throughout history the pomegranate has been a symbol of fruitfulness, fertility and abundance. It is often a house gift to new home owner in some countries, eat the seeds and you will share in life's rewards. Ancient religions and mythology also feature pomegranate seeds or fruit.

But the broadest influence is in the consumption of the fruit. From juice to fleshy seeds the various recipes are too many to fully list here. Pomegranate juice is sweet and tart and can be used to make wine and other beverages. One tip is to leave the fruit on the tree as long as possible in order to get the sweetest juice. The red individual fleshy and juicy seed coats are technically known as *sarcotestas*. These juicy treats are widely used as part of food recipes or as a garnish for many ethnic dishes.

One thing I have learned about is the different ways of opening up the fruit. When I was young this fruit was banned from the house because of the messy juices that stained everything. Everyone has a different approach to get the juicy seeds. Some peel off the rind, some cut the fruit in half and whack it with a spoon to knock the seeds into a bowl. My favorite from You Tube is to score a square around the old flower stem on the bottom. Then snap that off sideways. Then score 4-6 lines where you see the membranes. The resulting segments are easy to handle and a lot less messy. I like to keep some in the fridge to sprinkle on salads.

Regardless of your personal preference on pomegranate it is an entertaining small tree that produces fun tasty fruit. This is just one of the many fruit tree species that you can get tips on when you attend the Fruit Tree Workshop in January. This is a hands-on workshop so be prepared. Bring your pruning hand tools, water, sunscreen, hat, gloves and wear suitable clothing, footwear, etc. And yes, please remember a face cover or mask as well. It is hard to predict how many will be there, so please reserve your spot by registering early on the PTCA website.

Landscaping To Reduce Wildfire Risk

While wildfires happen every season in California, this year's toll is particularly devastating. According to a briefing Monday by CA Governor Gavin Newsom, this time last year, CA had 4,292 wildfires burning across 56,000 acres. This year, there are 7,002 fires burning across more than 1.4 million acres. There have been seven deaths and over 12,000 structures destroyed. Two of the "lightning complex" fires burning around the San Francisco area are now recorded as the second and third largest in CA history.

Unfortunately, there are no ways to fireproof a property, but the University of California's Division of Agriculture and Natural Resources offers strategies to design and maintain landscapes for reduced vulnerability. A key component of this protection is the proper placement and maintenance of plants around the home. While many in CA now seek plants with a label assuring some level of fire resistance, it's important to recognize that any plant will burn under the right conditions.

During a wildfire, structures are threatened not only by the flaming front of the fire, but also by embers that are lofted ahead of the fire front and can come into contact with receptive fuels (e.g vegetation or mulch next to the house), igniting new fires. Traditional "defensible space" tactics are designed to mitigate threats from the front of the fire but do little to address vulnerabilities to wafting embers. Without attention to ember-related risks, defensible space efforts only address a portion of the threat—especially during wind-driven fires.

A Three Zone Strategy

To be able to reduce ember, radiant heat, and direct flame exposure to a structure, develop and implement a three-zone strategy whereby the highest priorities and most restrictive measures are incorporated in the area closest to the building. Treating potential "fuels" within the first five feet of structures is one of the most important aspects of wildfire hazard mitigation.

While these strategies require some adjustment from methods of the past, it is possible to have both a beautiful landscape and a home that is more resilient to wildfire. Work

from the house outward to make sure the structure itself is hardened against fire, then implement the guidelines here in concentric circles moving away from your structures. Here are some tips to think about:

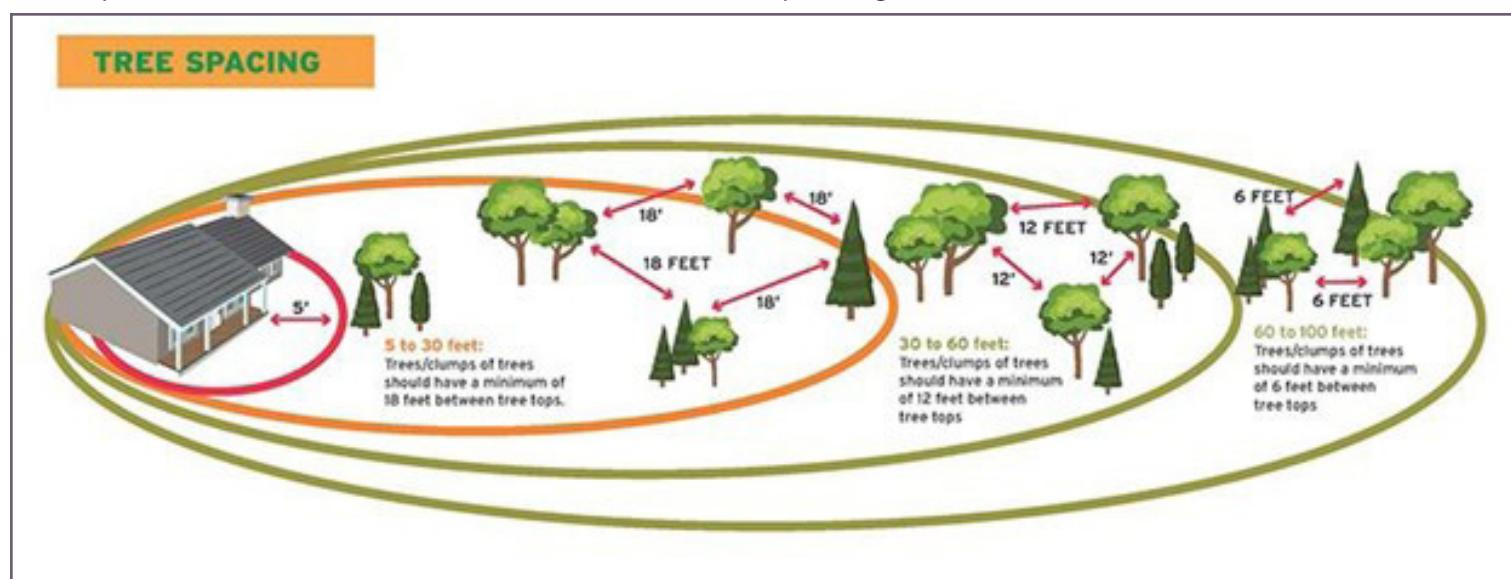
Create Defensible Space

- Create fuel breaks (essentially spaces) surrounding the house and within the yard.
- Place plants with ample space both vertically and horizontally.
- Use hardscape and noncombustible materials around structures and to separate individual plants and groups of plants.
- Use the right plants in the right places with fire, climate, and irrigation needs in mind.
- Create plant islands that have similar sun, nutrient, and water needs.
- Replace combustible (such as wood) gates that attach to the house with materials that will not burn.
- Decorative Features such as fencing and gazebos, as well as firewood, can be combustible materials that should be considered in a landscape layout. Use appropriate clearance or modify positioning for these features to reduce the threat from burning embers.

Maintain The Landscape

- Keep the garden free of dead wood, dry grasses, and leaf litter, especially near any structures.
- Prune plants to maintain horizontal and vertical space throughout the property and surrounding structures.
- Eliminate "fire ladders." For instance, a grass fire can move up into shrubs and then further into trees.
- Hydrate plants with a water-wise irrigation system.
- Use non combustible mulches near the house.

This defensible space is only part of a larger landscape management strategy, designed to protect a home and property. The general surroundings leading up to a home or building must also be considered as part of wildfire preparedness planning.



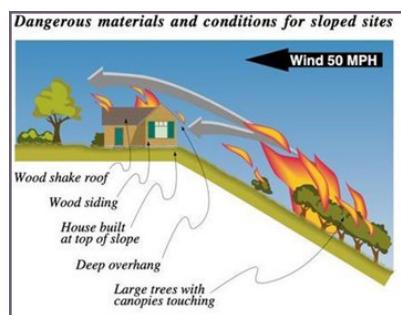
Steep Slopes & Wind

If the home is located on a steep slope, or in a drainage area, windy area, or an area surrounded by unusually dense, tall, or combustible vegetation, thinning recommendations increase. Additionally, if the property is surrounded by vegetation especially prone to wildfire or has an active fire history, the greater the clearance and separation between plants and plant groupings should be. When a home is at the top of a slope, keep in mind that fire and heat rise, allowing for pre-heating of upslope fuels and resulting in the potential for more intense fire behavior. In these cases, greater effort should be directed at the downslope of the home with even higher levels of spacing given to the area below a deck. Recommendations based on the judgement of fire professionals are:

- Under 20% slope: Space shrubs 2 x the height
- 20-40% slope: Space shrubs 4 x the height
- Greater than 40%: Space shrubs 6 x the height

Wind is another factor to consider alongside aspect and slope. A south-facing slope with southerly winds can easily

span the 30 foot "lean and clean" recommendation. Work with a local resource experts to install adequate measures if a property is at great risk.



Helping client properties achieve greater wildfire resiliency will take a coupled approach and greater awareness of ember protection. Homes survive wildfire through a combination of 1) careful design and maintenance of landscaping; 2) awareness and management of combustible materials on the property (e.g., leaf litter, wood piles, and lawn furniture); and 3) incorporation of fire- and ember-resistant construction materials with appropriate installation and maintenance.

This article was adapted from "Preparing Your Landscape" from the Division of Agriculture and Natural Resources at the University of California.

TREE NEWS

Trees and Time More than Carbon

I have an active interest in anything involving trees. A recent news item caught my eye. A Rembrandt painting that had been judged a fake might actually be real. But why does that involve trees? Read the press release to find out:

The Ashmolean has uncovered a painting in its stores, bequeathed to the Museum in 1951, which can now be confirmed as having been painted in Rembrandt's workshop in c. 1630. The tiny picture, Head of a Bearded Man, is a portrait study of an old man with a downcast gaze, typical of Rembrandt's work at this time. The painting will be put on display (from 2 September 2020) in the critically acclaimed Young Rembrandt exhibition where it can be seen alongside other works of the same period, before undergoing further study and conservation in the Ashmolean's labs to determine whether there is evidence of Rembrandt's own hand in the work.

The painting was bequeathed to the Museum by a British art collector and dealer and entered the collection as an early Rembrandt. A printed label stuck to the back of the painting has been cut out from the catalogue of a Paris auction which took place on 25 February 1777. The text reads: 'A Head of an Old Man, painted by Rembrandt. Very (realistic/ true to nature?) colour; height, six pouces by five wide.' But it was rejected in 1982 by the leading authorities on Rembrandt's work, 'the Rembrandt Research Project', who believed it to be the best of a number of copies of a lost original. Another version is in the Museum of Fine Arts in Houston.

Taking the Young Rembrandt exhibition as an opportunity to re-examine the painting, Curator An Van Camp and Conservators Jevon Thistlewood and Morwenna Blewett, brought the picture out of the stores to analyse it with the help of Professor Peter Klein, an internationally renowned dendrochronologist. He has established that the wood panel on which it is painted comes from the same tree used for Rembrandt's Andromeda Chained to the Rocks (c. 1630, Mauritshaus, The Hague) and Jan Lievens's Portrait of Rembrandt's Mother (c. 1630, Staatliche



*Infrared comparison of Head of Bearded Man.
Photo Courtesy: Ashmolean Museum, University of Oxford*

Kunstsammlungen, Dresden), both painted when the artists were working in Leiden.

Professor Klein says: 'Dendrochronology is a method for dating wooden objects by analysing the growth rings of the tree and determining its felling date. The Ashmolean's Head of a Bearded Man was painted on a panel which came from an oak tree in the Baltic region, felled between 1618 and 1628, and used in two known works by Rembrandt and Lievens. Allowing a minimum of two years for the seasoning of the wood, we can firmly date the portrait to 1620-30'

I hope some of my thoughts are worth sharing with other tree folks. Who felled the original tree? What tools were used? How was it stored and seasoned for the two years before use? Who processed it into the desired sizes? Who transported it to market or art studio? How much was it sold for?

When I ponder those thoughts I cannot help but think about the efforts to repurpose urban wood. There are some amazing and beautiful artistic works being produced these days. Perhaps future generations will be able to appreciate the efforts involved with their creation. - Dan Simpson

Addressing the Science Surrounding Glyphosate

UC ANR's charge is research and extension and we provide guidance about how to manage weeds using registered pesticides and by non-chemical methods. UC ANR includes information in its publications on how to effectively and safely use glyphosate where it is legal to do so as well as provide options for alternative chemical and non-chemical approaches for managing weeds.

UC ANR recognizes that the use of any pesticide carries risks, including in some cases the possibility of acute (immediate), chronic (long term) or carcinogenic effects, to those who may be exposed to them. This is true of any pesticide, which includes herbicides such as glyphosate.

UC ANR has not specifically addressed carcinogenicity or other health issues related to glyphosate; these are areas of active research, data interpretation, and debate over inferences, conclusions, and courses of action in the scientific community and regulatory bodies as well as in the public discourse. However, to date, regulatory agencies in the United States have not significantly changed the legal uses of glyphosate herbicides.

What is risk? The specific risk of a pesticide are a function of both hazard (toxicity) and exposure; the risks from more hazardous materials can often be reduced by minimizing exposure (e.g. strictly following the directions on the label, using proper personal protective equipment, and using appropriate application methods). Conversely, high exposure levels (e.g. large concentrations, frequent exposure, long-term exposure) to a relatively lower hazard material has the potential to increase health risks.

What is glyphosate? Glyphosate is the active ingredient in herbicides such as the Roundup branded products as well as many other herbicides marketed under a variety of trade names. Glyphosate has been available since 1974 and is widely used by farmers, ranchers, landscapers, wildland managers, and home gardeners in California and around the world. This herbicide is used in a variety of systems because it is effective at controlling a wide range of annual and perennial grassy and broadleaf plants. Glyphosate herbicides typically are applied to



Applying glyphosate from a hand-held sprayer to control weeds.
Photo Courtesy: CA Reynolds

the foliage of emerged plants as a diluted spray but there are other application techniques and formulations for specific uses (e.g. cut stump treatments, no-surfactant formulations for some aquatic uses). Most glyphosate herbicides used in agriculture and commercial applications are sold as concentrated products that are then diluted in water before use; homeowner products may be either concentrates or sold in pre-diluted "ready to spray" packages.

How toxic is glyphosate? Glyphosate has been placed in Toxicity Category III by the US EPA. Toxicity Category I indicates the highest degree of acute toxicity, and Category IV, the lowest. People may become exposed to glyphosate and other pesticides directly by getting it on their skin or in their eyes or indirectly through environmental contamination such as food and water contamination. Applicators must follow label instructions with regard to personal protective equipment (PPE). Whether or not specifically required by the product label, wearing long pants, closed toed shoes, chemical resistant gloves, and protective eye wear will reduce the risk of glyphosate exposure. Even if chemical-resistant gloves are worn, people should always wash their hands after applying pesticides, and before activities such as eating, smoking, or using the restroom. Most glyphosate products available for the homeowner indicate on the label that people and pets may enter the treated area after the spray has dried.

What about cancer? In 2015, the International Agency for Research on Cancer (IARC), a non-regulatory organization, reviewed the published scientific literature on the carcinogenicity of glyphosate alone and in formulations. Based on their review, the IARC classified glyphosate as "probably carcinogenic to humans" and put it in group 2A. This category is used when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

Other groups such as the World Health Organization (WHO) and United Nations Food and Agriculture Organization (FAO) also examined the scientific literature on glyphosate. The joint FAO/WHO report concluded that glyphosate alone or in a formulation is unlikely to cause a carcinogenic risk to humans



Reading the pesticide label.
Photo Courtesy: ML Poe

from exposure in the diet. The U.S. Environmental Protection Agency (US EPA), the regulatory agency that determines how pesticides may be used legally in the U.S. also concluded that it is not likely a cancer risk.

Glyphosate was added to California's Proposition 65 list (chemicals known to the state to cause cancer or reproductive toxicity) in 2017 because California regulations require chemicals listed in IARC hazard group 2A to be put on the Prop 65 list unless their report was deemed to have "less than sufficient evidence of carcinogenicity in humans and animals."

Weeds can have negative impacts on agriculture, public health, natural resources, and our economy. Likewise, pest control practices also have a range of potential impacts and outcomes. UC ANR promotes the use of Integrated Pest Management (IPM) strategies, including cultural and mechanical practices, and herbicides when needed. If glyphosate or any other herbicide is used to manage weeds, the pesticide label must be followed to ensure these products are used safely and legally for minimal exposure to applicators, non-target organisms, and our environment. For more information about weed management practices and the safe and effective use of pesticides, visit the UC IPM website.

For detailed information about glyphosate or any other pesticide, visit the National Pesticide Information Center website at or call 1-800-858-7378 Monday–Friday, between 8:00 a.m.–12:00 p.m. Pacific Time. The National Pesticide Information



Chemical resistant gloves.
Photo Courtesy: CA Reynolds

Center provides objective, science-based answers to questions about pesticides.

Developed by a team of UC ANR Advisors and Specialists with expertise in weed science. For more information: Please contact UC ANR Strategic Communications at http://anrcs.ucanr.edu/Strategic_Communications/

Article originally published as "Addressing the Science Surrounding Glyphosate" in the Summer 2019 issue of the Retail Nursery and Garden Center IPM Newsletter.



WESTERN CHAPTER ISA MONTHLY WEB SERIES

1st Wednesday of each month



October 7

Weeds and Soils

Igor Lacan, Ph.D.
UCCE, Half Moon Bay, CA

November 4

Proper Pruning

James Downer, Ph.D.
UCCE, Ventura, CA

December 2

**Field Soil Testing for
Arborists**

Tracey Takeuchi
Agricultural Advisor,
Norco, CA

DETAILS:

- All sessions are scheduled from 11:00AM -12:30PM. 1 hour of instruction and .5 hour for Q & A
- You must register to attend the sessions.
- All registered attendees will receive a confirmation email (receipt) and a separate email with a link to the Zoom Webinar. An email reminder will be sent via zoom the morning of the session.
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