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THE WATER ISSUE

THRIVING IN DROUGHT

MONARCH ENVIRONMENTAL

INSIDE

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Inside the Water Issue

How the drought reflects in our plant choices, our watering practices, and our tree care.



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Monarch tip: don't run through reclaimed water sprinklers.

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Local Legends

Sometimes, native plants aren't just a wise choice - they're the most stunning. Rely on your local nurseries for appropriate selections and field-tested experience.

Publisher

Monarch Environmental

Editor

Jen Wilson
jen@monarchu.com
www.monarchu.com

Cover

California View: *Opuntia*
Jen Wilson



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what to consider beyond drought tolerance



It's not just a drought. Respond to the changing climate with information, sustainable strategies, and Californian courage.

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CALIFORNIA NURSERY STORY

Mike Evans, owner of Tree of Life nursery, shares his journey with CA native plants



Monarch's Matt Davenport sits down with Tree of Life Nursery owner and Saddleback teacher Mike Evans for a freewheeling exploration of his horticultural career.

Tree of Life has been part of Orange County's native plant scene for over 40 years! This California natives-based nursery offers retail, wholesale, design services, landscape maintenance, workshops, and ample educational resources to support your native garden.

VISIT
33201 Ortega Highway
San Juan Capistrano CA 92675

WEB
californianativeplants.com

How did you get started in this industry?

After high school, I knew I needed to work outdoors and I knew from past experiences that I needed to work with plants. I thought about fishing and construction, but I ended up getting a job at a retail nursery. I started to learn plant names and then took some classes and never looked back.

What made you think you wanted to be around plants?

Well, I really wanted to be around surf. I traveled around mainland Mexico and did the surfing-camping thing. I saw the agrarian, simple, *Campesino* lifestyle and as a young man, I saw how they were productive with their hands and tools. It was a great example for me.

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EDITOR'S NOTE

Welcome to the water issue. As you know, water has always been the issue. We used to call low water designs xeriscaping, which fell out of favor because it sounds like zero-scape. The perspective was that's what you'd get: zero color, zero lushness, zero beauty. 'Xeric' (meaning dry) was actually the perfect descriptor for this style of landscaping. Not based on geographic origin, promises of resiliency, or any specific aesthetic, just a response to the water issue.

If you're here, you know that our xeric palette is diverse and beautiful. You know that tough doesn't just mean cacti and natives go beyond buckwheat. You know that a critical look at irrigation and maintenance practices can have a huge impact on retaining the plants we love.

The answer won't just be one tactic - installing drip, switching to all CA natives, or cutting down every tree. The answer is going to be a shift in our perspective, how we define landscape success and environmental beauty.

Join us in this issue as your Monarch consultants inform and advise on all aspects of the landscape to help your community adapt to drought.

A critical look at irrigation and maintenance practices can have a huge impact on retaining the plants we love.

Jen Wilson

Director of Horticulture
Editor, Monarch Publications

CORE CONTRIBUTORS



Matt Davenport

CEO and President Matt Davenport founded Monarch Environmental in 2008. In addition to his management role, Matt serves as consultant for horticulture, irrigation, arboriculture, and contract oversight.



Jen Wilson

Jen Wilson is Director of Horticulture and Editor for Monarch Publications. She is a horticultural consultant, certified arborist, and Qualified Water Efficient Landscaper. Her background is in horticulture, landscape design, and fine arts.



Evin Lambert

Evin Lambert, Director of Arboriculture, focuses solely on arboricultural consulting, protecting our clients' most valuable assets. Her expertise extends to leading arboricultural technology and urban forest management.



Andrew Chase

As our Director of Water Management, Andrew Chase leads our team in best irrigation practices. His specialty is water conservation in drought conditions and harsh climates. Andrew is also a hydraulic and electrical troubleshooting expert.

Follow and engage with us on social media for insights from the field.



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HOW SMART IS YOUR IRRIGATION

July is Smart Irrigation Month, celebrating the advances made within the irrigation industry. So, what qualifies irrigation as smart?

ANDREW CHASE Director of Water Management

Smart irrigation equipment isn't so smart unless someone understands how to install and use it properly. Selecting the most efficient and effective irrigation equipment specific to your landscape goals is smarter than relying on high-tech programs without a deep understanding of these systems. Let's raise our water IQ!

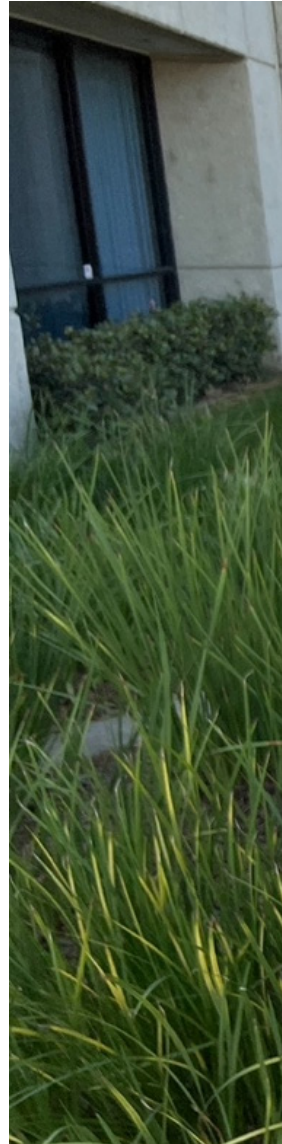
Drip irrigation is the most efficient means of irrigation available. Drip applies water directly to the soil, minimizing runoff and overspray. Drip has been used throughout dry areas of the world since ancient times and the modern drip emitter we know today was developed in Israel to irrigate agricultural crops in desert climates. Today, we advocate this efficient means of applying water to thirsty, and not-so-thirsty, landscapes.

Using **rotary nozzles** with overhead irrigation instead of traditional spray nozzles is also smart. Rotary nozzle rotors were first developed nearly 40 years ago, and current rotary nozzles have been in use for the last 20 years. These are designed for smaller areas and easy adjustability. Rotary nozzles throw water in streams at precise angles, producing larger water droplets that are heavier and land more precisely than those cast by spray nozzles. A slower application of water allows for deeper watering which minimizes runoff, especially in clay-based soils.

Resource Management Consultant Nick Mayer programs smart controllers on his mobile device in the field.

In certain cases, **spray nozzles** are the best solution for an area. Pressure regulating spray bodies are key for water conservation and uniformity. Using a sprinkler body that matches the designed optimal pressure rating of a rotary nozzle increases the efficiency of the nozzle and how uniformly it applies water to the landscape. Newer to our industry are pressure-regulating gear drive rotors that are best in large turf areas and slopes. These irrigate much more uniformly when water pressures are regulated down to the ideal outlet pressure of the nozzle. With these sprinkler types, the use of check valves where elevation changes are evident will help reduce water waste by keeping water in the irrigation piping and not running off after the irrigation cycle ends.

When it comes to being smart, the smartest irrigation equipment that can be installed is today's **weather-based irrigation controllers**. The foundation of all weather-based con-





THE MODERN DRIP
EMITTER WE KNOW TO-
DAY WAS DEVELOPED
IN ISRAEL TO IRRIGATE
AGRICULTURAL CROPS
IN DESERT CLIMATES.

trollers is similar across different brands and models. Specific parameters are programmed into the controller's individual station settings, such as irrigation type, plant type, soil type, sun exposure, and slope angle. These settings can be manually adjusted to respond to subtle changes in the landscape. Whether using onsite or remote weather readings, these controllers create daily irrigation schedules for every individual station based on all of these factors and more!



Tree of Life Nursery is a haven for plant nerds. Here, natives are in their element, gorgeous, and accessible.

Continued from page 4

Growing up in Newport Beach, you never had any thought of becoming a pro surfer?

No, I was never that ambitious. I really started at Amling Nursery at 19 and even then, I was asking my boss to take time to travel to Mexico to collect seeds, cuttings, and even live plants. We collected using import permits and donated most of the plants to the San Diego Zoo and Botanical Gardens.

Larry Amling was an amazing man and I am eternally grateful to the Amling family for hiring a surf kid. Amling Nursery eventually became Armstrong in Newport Beach. After a while though, they understandably tired of my traveling lifestyle, and we parted company. But I needed to go live this thing so I got my C-27 and began Tree of Life Nursery Landscaping.

What were you growing at that point?

I had natives but not exclusively. That was really at the behest of a local landowner that gave me a little plot of land. He really believed in me. In time, I met up with different people that focused on natives. I realized I could still jump in a truck and drive out on dirt roads and col-

lect seeds and cuttings, like the life I lived in Mexico. That was a pretty good life and eventually led to meeting my business partner, Jeff Bohn. Jeff and I had similar interests in tropical plants, subtropical fruits, and native plants. In 1981, we decided to see if we could do something together. Here we are, 42 years later, still business partners.

That's impressive! What is your partnership dynamic?

Jeff is more the technician. He is behind the scenes, managing production schedules and working out techniques for propagation with the production team. I'm working more with PR and facilities, connecting with people, and representing the company externally. It's not that Jeff doesn't do any of that or that I don't get my hands dirty but over time we have realized that Jeff is more of a technician and I'm more of an entrepreneur.

How did you choose the name Tree of Life?

It is referenced in many different cultures, histories, and faiths all over the world but the biblical reference to the tree of life is where we got ours. We are both Christians and back when I had a landscape company, I was mixing up a wheel-



barrow full of organic fertilizer that contained iron sulfate, iron sulfur, bone meal, and things like that. My worker at the time was helping me mix said, *when you put this in the ground and around the plants they are going to grow like the tree of life*. I'll never forget, I thought that was cool, so I started calling the company by that name.

Where do you think the green industry is headed?

I think it's headed where it all started. My dad enjoyed taking care of his garden and people now want to feel connected again. We want to see butterflies, lizards, bees, and whatever hangs around. What happened is that landscapes became very commercial, meaning the garden was somebody else's job. A generation became disconnected from the garden. Automatic sprinklers and commercial landscapers are great, but it doesn't satisfy our need for connection with nature and the garden. I believe in America there is going to be a reconnection

Romneya coulteri
(Coulter's poppy or fried egg poppy) is California's largest single flower and is tough as nails.

Mike and Dakota
on their nursery
rounds.



with plain ordinary soil back in your hands.

So, that's the future - it's not about low water or anything else. That's a tired message. It's about the sensory value that plants provide that will get people going. Our native plants provide that sort of beauty, oh and by the way, require much less water. It's a double win.

What do you say to people that say I don't want a desert landscape?

I would say come to Tree of Life nursery. It's as lush and green as a tropical landscape. We emphasize themes and telling a story through the garden. If you come here, you will see that if the leaves were a little larger, we could be in the tropics and it's all native only gets watered



three times per year.

What advice would you give the next generation of horticulturist?

Learn everywhere. There are some incredible apps and tools but don't forget about books. Society is an important part of learning; you need to join clubs and learn from each other. Spend your free time diving in at visitor centers, botanical gardens and anywhere else you can get it. To this day, I go to visitor centers any chance I get. Get some context that will help interpret the space. Assemble a library, learn plant names, and do the work.

A heartfelt and respectful thank you to Mike Evans for his time and the amazing resource he and his team have created at Tree of Life.

WATER BOSS CERTIFIED



Does irrigation make your eyes water? Even the certifications associated with irrigation can be confusing to the uninitiated. Explore the world of water education as we demystify industry acronyms.

ANDREW CHASE Director of Water Management

Landscape associations such as the California Landscape Contractors Association (CLCA) work with local and regional water agencies to provide certification training at little or no cost to the student. Irrigation certifications are available at the local, regional, and national levels from multiple sources and are taught in English and Spanish. National associations like the Irrigation Association offer a large breadth of certifications from beginner to advanced and are recognized locally, regionally, nationally, and even worldwide!

Certified Irrigation Technician (CIT)

A Certified Irrigation Technician is trained on how irrigation systems perform in the field. To become certified, the technician is tested on sprinkler components and how they perform in dynamic conditions such as water pressure and water flow through various sizes and types

of pipes, irrigation component troubleshooting, basic hydraulic design for pressure loss calculations, electrical troubleshooting of low voltage control wiring, sprinkler head types and nozzle selection, sprinkler spacing, and basic irrigation controller programming.

Certified Landscape Irrigation Auditor (CLIA)

A Certified Landscape Irrigation Auditor uses the knowledge of a technician and applies it to understanding how an irrigation system works with a landscape site's specific characteristics. Learned methods are used to identify inefficiencies and how to irrigate a site as efficiently as possible. Required is an in-depth understanding of how different soils react to watering rates and how well these soils hold onto moisture, watering to plant root zones, and determining the correct amount of water for specific plant types. The auditor correctly programs weather-based irrigation controllers with the ability to measure true application rates, test an irrigation system's performance us-

Occupational hazard: the overwhelming temptation to run through the sprinklers.



Catch as catch can: these “catch cans” are used to determine distribution uniformity in the field. Instead of relying on technology to tell us how much water is being applied, we can immediately see how the system is operating.

ing pressure readings, and utilize field catch-cans and formulas to determine efficiencies and inefficiencies.

Qualified Water Efficient Landscaper (QWEL)

This regional certification started in California and has become a certification many water agencies have sponsored to promote smart irrigation and water-wise landscape practices. Basic irrigation principles that are taught to CITs and a vast majority of the education taught to CLIAs are taught for this certification. In addition to irrigation principles, drought-tolerant plants and other water efficiencies are taught that are ideally used in combination with one another. Upon receiving a QWEL certification, this certified individual is allowed to perform certified water audits.

Certified Landscape Water Manager (CLWM or CWM)

A Certified Landscape Water Manager applies the knowledge learned in becoming an irrigation auditor in the daily management of irrigation systems. Conceptual knowledge becomes practical knowledge as a water manager keeps track of a site’s dynamics, makes physical changes to the programming of irrigation controllers and directs physical changes to the irrigation systems.

During the certification process, advanced scheduling techniques are learned and a deeper dive into the soil-air-water relationship is made. A more advanced understanding of a particular plant’s water needs based on crop factors and microclimates is taught. A Certified Landscape Water Manager has a complete understanding of irrigation scheduling and how to correctly program both stand-alone and

weather-based irrigation controllers.

Certified Irrigation Contractor (CIC)

A Certified Irrigation Contractor is taught the basics of irrigation auditing while learning how to perform all aspects of bidding, installing, and maintaining irrigation systems. Interpreting architectural plans, providing accurately priced proposals, implementing correct installation practices, and irrigation scheduling based on CIA standards are taught and tested to acquire this certification. The goal of this certification is comprehensive project management to ensure that all these items are executed correctly, within budget, and on schedule. This certification has the lowest pass rate in the Irrigation Association.

Certified Irrigation Designer (CID)

A Certified Irrigation Designer is knowledgeable in all aspects of irrigation taught to technicians, auditors, and managers. This knowledge is applied to a site’s unique characteristics to supply enough water within a certain amount of time to ensure the landscape’s watering needs are as cost-effective and efficient as possible. Advanced hydraulics, intermediate electrical skills, pumping systems, and topography are coupled with irrigation best practices to design the best systems possible for individual sites. The ability to provide designs, construction details, equipment specifications, and education on the use of the installed components must be able to be given to the end-user by the irrigation designer.

Andrew heads up our water management department and holds the following certifications:

- Qualified Water Efficient Landscaper
- Certified Landscape Irrigation Auditor
- Certified Landscape Water Manager
- Certified Irrigation Contractor
- Certified Irrigation Designer
- Professional Member of ASIC (American Society of Irrigation Consultants)

How can we help? Monarch provides:

- Irrigation inspections
- Irrigation assessments and reports
- Certified Water Management

PLANT SELECTION



The key to a successful, low-water landscape is finding a balance of companion plants. Tall grasses like *Miscanthus* can establish a dramatic background for sculptural succulents like *Aloiampelos* (hedgehog aloe) and CA native *Salvia chamaedryoides* (germander sage). Similar cultural requirements and disparate textures and colors create an engaging landscape.





Keep a close eye on establishing groundcovers like these tried-and-true *Calylophus*. Drip irrigation designed for mature plants may miss smaller root zones.

Not all “drought tolerant” plants are created equal. This popular industry term can be vague and misleading. Trusted resources with detailed horticultural information can help:

CA Native Plant Society

• calscape.org

Theodore Payne Foundation

• theodorepayne.org

San Marcos Growers

• smgrowers.com

Las Pilitas Nursery

• laspilitas.com

Tree of Life Nursery

• californianativeplants.com

Mallows like this *Anisodontea* bring a sense of the tropics to drier climates.



As water conservation becomes a mainstream concern, nurseries are offering an abundance of low-water plant options. The label “drought tolerant” is helpful but it generally fails to capture the subtleties of these plants’ needs. Plants do not prefer drought, but many species are adapted to low water and higher temperatures.

Drought tolerant...once established. Groundcovers and other small-scale plants are especially vulnerable, particularly those with small root masses. If these plants are watered on a drip system, they may not have sufficient roots to access water. Supplemental watering may be helpful until the plants have had a chance to

spread their roots through their first season or two.

Drought tolerant...in certain soils.

A low-water plant will react differently in sandy soils that drain quickly and clay soils that retain water. More important than selecting plants for water use is selecting ones that perform well in your soil and irrigating accordingly to avoid water waste and minimize plant loss.

Drought tolerant...with seasonal caveats.

Is that plant summer dormant, summer dry, or does it require summer water? Some California natives are dormant during the hottest months, conserving energy and waiting for the cool season. Watering these plants right alongside other “drought tolerant” species that need extra water to get through summer can quickly lead to rot from increased humidity.

An experienced horticulturist will help navigate your community through overwhelming plant choices. Established parameters like irrigation goals, soil types, sun exposure, and mulch frequency should be considered in selection, along with style options like texture, color, seasonality, and character.



Native grasses like *Bouteloua* out-perform traditional turf in terms of sustainability and habitat support.

TURF TALK

Jeff Beardsley

“Green” is a catch-all term these days. It is hardly quantifiable and may refer to sustainability, aesthetics, or some vague environmental benefit. When searching for a “green” alternative for turf, you will need to identify a specific goal or goals and find a plant type that suits your needs: drought tolerance, reduced labor, support for beneficial wildlife, lush and natural appearance, reduced chemical dependence.

Water consumption by landscapes draws purposeful scrutiny, requiring planning and understanding of plants’ needs and care along with environmental factors. In this regard, traditional turfgrasses are often the first group to draw attention

during water use discussions.

In Southern California, warm-season varieties of Bermuda grass and paspalum do provide oxygen production and carbon absorption properties, making them superior to synthetic grass where more climate-appropriate species are not suitable (sports fields, for example). The wear tolerance and ability to recover from foot traffic are second to none in living material. The challenge is finding a balance for the landscape to function as intended yet achieve the desired reduction in water consumption.

Knowing the purpose and site constraints of the landscape is necessary when considering turfgrass alternatives. Here are some factors to consider:

- ◊ Foot traffic and other mechanical damage tolerance
- ◊ Active or passive use
- ◊ Water source (potable or recycled)
- ◊ Full sun, partial, or shade
- ◊ Mow or no-mow

With these items in mind, we can prioritize and then source the available alternatives to meet the needs of the site. Although a cool-season grass, California native grasses such as *Agrostis pallens* (native bentgrass) have properties similar to traditional grasses when mowed. When allowed to grow to maturity, this grass creates a natural meadow-like appearance. *Agrostis* takes full sun to partial shade and is considered extremely drought tolerant. If you enjoy the meadow look, other native *Calamagrostis*, *Carex*, or *Fescue* are good options.

If you love your lawn mower, try *Achillea* (yarrow). While you can enjoy vibrant, pollinator-attracting flowers, this plant is tolerant of regular mowing and foot traffic.

Kurapia (*Lippia nodiflora*) is a relatively new groundcover option. This plant demonstrates similar qualities to turf grass when routinely mowed, but when left to mature to a more natural look, small, white flowers cover the canopy. With a deep root system and minimal water requirements, Kurapia does best in full sun but tolerates partial shade. This one requires a close eye on weed control, especially while establishing.

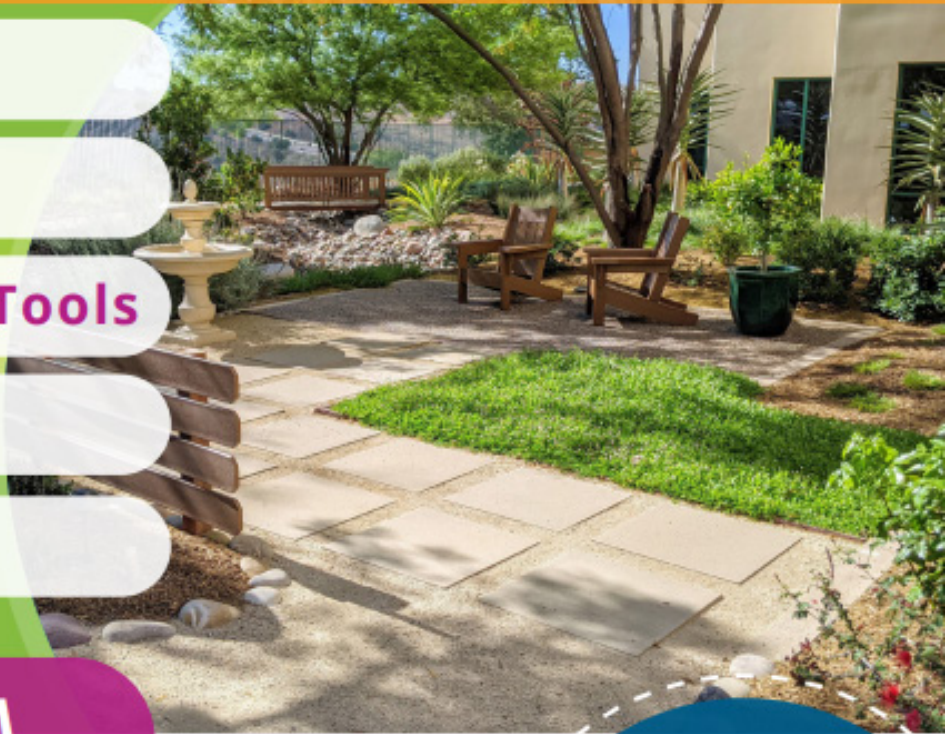
If your intention is not a walkable area, you have a great opportunity to add texture, color, fragrance, seasonal interest, and pollinator support on a larger scale. Sprawling, woodier groundcovers like *Salvia* (*S. chamaedryoides*, *S. leucophylla*, and *S. sonomensis* are great choices), *Ceanothus* (CA lilac), and *Arctostaphylos* (manzanita) are interesting choices that offer a nuanced range of tolerances in soil types,

IN A DROUGHT, *Help Out!*

FIND CUSTOMIZED PROGRAMS AND RESOURCES FOR YOUR COMMUNITY.

- Rebates
- Programs
- Planting Design Tools
- Workshops
- Resources

SMWD.com/HOA



SMWD provides drinking water, recycled water, and wastewater services to over 200,000 people in 9 different communities in south Orange County.



Rebates from your water district can help offset the cost of upgrading your turf to a low-water, sustainable landscape.

sun exposure, and water needs. Remember that turf is not automatically the enemy – even higher maintenance grasses will provide environmental benefits over impermeable hardscape, synthetic turf, and temperamental plant choices. How we utilize different plant types in the field should be a carefully considered process, approached with education and long-term planning.

If your community is interested in turf re-education, Monarch can guide you through the entire process from identifying opportunities, applying for rebates, designing your new landscape, and updating your maintenance practices.

Reach out to projects@monarchu.com

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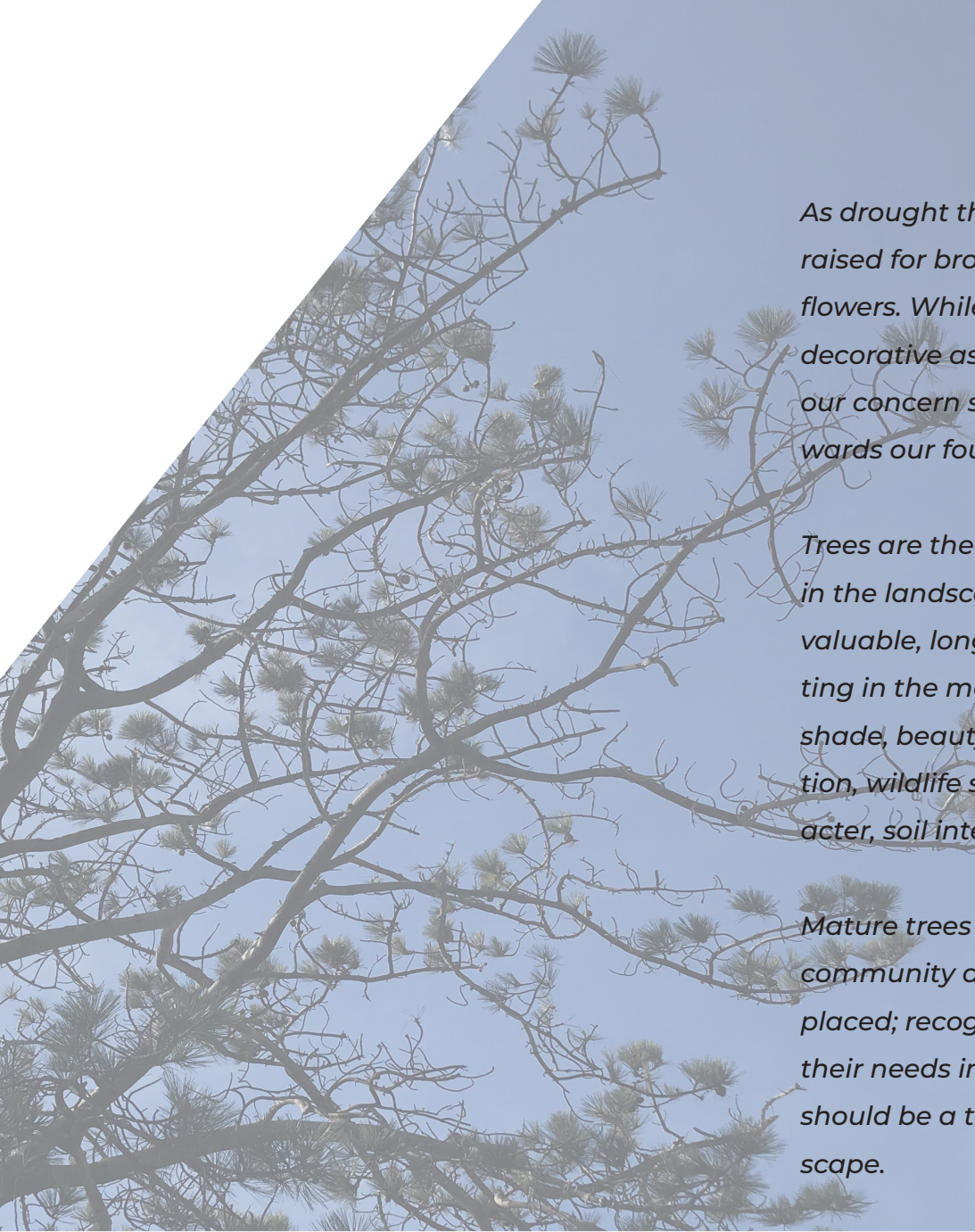
DROUGHT STRESS IN THE URBAN FOREST

EVIN LAMBERT Director of Arboriculture



SUBTLE
IN DROU
UNNECE
EXCESS
UNDERM
FOREST

Schinus molle (California pepper) trees are losing ground as CA icons against prolonged drought.



As drought threatens, the alarm is raised for brown lawns and wilting flowers. While we may enjoy the decorative aspects of landscaping, our concern should be directed towards our foundations – trees.

Trees are the most treasured asset in the landscape. Highly visible, valuable, long-lived trees are putting in the most work to provide shade, beauty, carbon sequestration, wildlife support, design character, soil integrity, and oxygen.

Mature trees are a part of the community and not easily replaced; recognizing and supporting their needs in a changing climate should be a top priority in any landscape.

FACTORS AFFECT TREES
DROUGHT. FERTILIZING
NECESSARILY PROMOTES
POSITIVE GROWTH,
IMPROVING THE URBAN
ENVIRONMENT'S HEALTH.

Drought stress is insidious. Signs and symptoms can mimic other stressors and are often overlooked until the situation has become severe.

Routine monitoring is the best defense along with the knowledge of what's typical and atypical for your urban forest population. Watching for changes in leaf appearance, bud development, bark structure, and

the overall canopy can give you early indicators of drought-related stress.

What doesn't kill you makes you stronger?
Wrong! Stressed trees are slow to recover and may suffer permanent damage, cause damage to people or property, or experience premature death.

Continued...



Have an arborist perform regular inspections to make any corrections in a stressed tree's cultural care protocol before it's too late!



STRESS RESPONSE

How do trees show their stress?

- **Wilting** - wilted leaves are an early indicator of water stress
- **Leaf drop** - trees may shed leaves to conserve water
- **Yellowing** - older leaves turn yellow
- **New bud drop** - new buds die and fall off
- **Canopy dieback** - overall dieback in canopy
- **Bark cracking** - bark will crack and may slough off

PROTECTING YOUR TREES

Factors like decreased root activity and growth can lead to undetected instability, a huge risk factor for failure in annual wind events and storms. Canopy dieback is a concern for branch loss, a vulnerability for the tree as well as targets underneath. Stressed trees are also known to have an increased susceptibility to pest and disease issues.

Understanding the dangers posed by drought is a step towards protection. Simple cultural practices can help prevent or alleviate stress.

1. Start with dialing in your irrigation:

- ◇ Install bubblers closer to the dripline of the canopy, to cover as much of root zone as possible while keeping area immediately surrounding the trunk dry.
- ◇ Allow soil to dry out between waterings: provide deep and infrequent irrigation, between two and four times per month depending on the season, current season's rainfall amounts, soil structure and drainage, planting location, tree species, and other fluctuating variables.

3. Newly installed (small) trees need five gallons of water approximately twice per week until established, but mature trees can survive on amounts between 20 and 200 gallons per month (depending on factors mentioned above).

4. Next, review your cultural practices and adjust during drought conditions.

Do:

- ◊ Water between dusk and dawn to minimize evaporation
- ◊ Keep weeds at bay to reduce competition for available water and soil nutrients
- ◊ Ensure understory plantings are compatible with trees, and keep them as far away from the tree as feasible

Do Not:

- ◊ Unnecessarily prune trees experiencing drought stress. Aim to only remove dead, dying, or diseased wood, or as needed to provide road/side-walk/building clearance.
- ◊ Fertilize unnecessarily, which can promote excessive and unnecessary growth
- ◊ Disturb the root system un-

necessarily, during construction, landscape, or hardscape renovation projects where root pruning may be necessary

5. Use mulch wisely:

- ◊ Apply a 2" – 6" deep layer of mulch throughout the drip zone, being sure to keep mulch and leaf litter at least 6" away from the tree trunks
- ◊ Ensure that irrigation delivery method is compatible with mulch, so the mulch doesn't prevent water from reaching the tree's roots
- ◊ Follow OCFA guidelines and keep mulch at least 5' away from buildings
- ◊ Ensure that understory plantings are compatible with the irrigation needs of surrounding trees (don't plant roses beneath Coast Live Oaks, for example)

Following these best practices is a great start in facing drought years to come. Your best defense remains professional arborist support, routine inspections, and proactive care.



IS IT DEAD?

Severely stressed trees should be evaluated by an arborist. Here are some steps we take during field inspections:

- **Snap** test - snap a few twigs to see if they bend (still alive) or break (no life)
- **Scrape** test - scrape bark from a larger branch to see if wood underneath is still viable
- **Soil Probe** - check soil moisture at 12-36" below the surface to determine if soil is dry or over-saturated
- **Soil Sample** - If overwatering is suspected, consider submitting a soil sample to a lab for pathogen analysis



1

Drought stress may present as wilting, leaf discoloration, leaf drop, and die-back in the canopy.



2

Stress from over-watering can mimic drought stress. In this case, roots are unable to access sufficient oxygen due to oversaturation. Drought will similarly kill roots and deprive the tree from accessing the resources it needs to survive. Soil inspections are key in determining the cause and best course of action for treatment.

Director of Arboriculture Evin Lambert holds the following credentials:

- ASCA Registered Consulting Arborist
- ISA Certified Arborist
- ISA Tree Risk Assessment Qualified
- CA Pest Control Adviser



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