

# Help your trees survive drought

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We have a common plea: “How do I save my trees during this drought?”

“That’s what we hear over and over,” said Matt Morgan, certified arborist for Davey Tree Service in Sacramento. “People are really worried. Sacramento has the most trees per capita of probably any place in the world. If we lose our trees, our whole ecosystem changes.”

Without trees, Sacramento will be hotter with more smog and less wildlife. We want to stay the City of Trees.

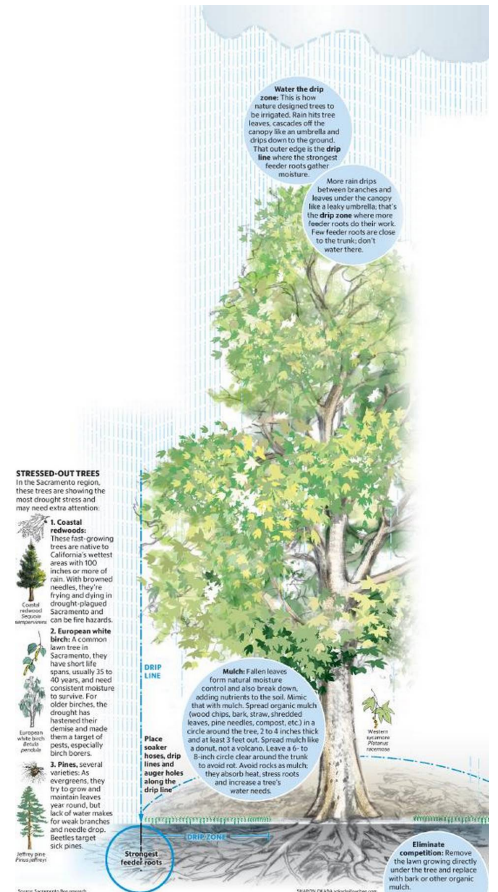
According to the U.S. Forest Service, 12.5 million trees already have died in California due to the drought. Many more are at risk, particularly in urban areas as residents cut back water use. State mandates call for up to 36 percent cutbacks compared to 2013 use.

“The biggest problem right now are lawn trees,” Morgan said. “Everybody is trying to get away from lawn; they’re taking it out or stop watering it. But they still have trees, and those trees were getting their water along with the lawn. It’s a good thing to get rid of the lawn, but you still need to water those trees.”

Coastal redwoods and birches are dying, but even drought-tolerant crepe myrtles and native California sycamores are showing stress from pests, Morgan said. “We’re seeing a lot of (sap-sucking) scale on sycamores, which normally are very drought-tolerant. Crepe myrtles are getting more aphids.”

Trees need special attention now, said author and citrus grower Lance Walheim, expert for Bayer’s Advance, which makes lawn and garden products.

“People need to look *up* and pay attention to their trees,” Walheim said. “Then, look at your irrigation. In reality, you will end up with healthier trees.”



## Treat your trees like Mother Nature

**Water the drip zone:** This is how nature designed trees to be irrigated. Rain hits tree leaves, cascades off the canopy like an umbrella and drips to the ground. That outer edge is the drip line where the strongest feeder roots gather moisture. More rain drips between branches and leaves under the canopy like a leaky umbrella; that’s the drip zone where more feeder roots do their work. Few feeder roots are close to the trunk; don’t water there.

**Deep and slow:** Water trees deeply and infrequently, once a week or less. To water deeply, water slowly and directly away from the trunk so soil can absorb the moisture. Make sure water reaches the tree’s feeder roots in the top 12 inches of soil.

**Time it right:** Water early in the morning or after sunset; that’s when trees naturally replace water they’ve lost to heat during the day. That also cuts evaporation.

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The right way: Apply water directly to the drip zone with a hose on a gentle trickle, soaker hose, drip lines or buckets placed away from the trunk. Apply water in several places, spaced 2 to 3 feet apart, allowing the water to soak in. Try this: Take a 5-gallon bucket and puncture two or three holes in the bottom. Place the bucket directly on top of the soil under the tree's canopy and fill with water. The water will slowly seep into the soil. Move the bucket and repeat until the root zone is irrigated.

Go deeper: In hard clay soils, auger holes 1 foot deep every 3 feet around the tree near the drip line. Fill those holes with compost, then water; that vertical mulching will encourage deeper root growth. Some arborists and landscape services also offer water injections, pumping pressurized water directly into the root zone.

Easy does it: Let up on pruning, fertilization and other normal maintenance that encourages tree growth. Prune only if absolutely necessary. Do not fertilize a tree under drought stress.

Mulch: Fallen leaves form natural moisture control and also break down, adding nutrients to the soil. Mimic that with mulch. Spread organic mulch (wood chips, bark, straw, shredded leaves, pine needles, compost, etc.) in a circle around the tree, 2 to 4 inches thick and at least 3 feet out. Spread mulch like a donut, not a volcano. Leave a 6- to 8-inch circle clear around the trunk to avoid rot. Avoid rocks as mulch; they absorb heat, stress roots and increase a tree's water needs.

Eliminate competition: Remove the lawn growing directly under the tree and replace with bark or other organic mulch.

## **Stressed-out trees**

In the Sacramento region, these trees are showing the most drought stress and may need extra attention:

1. Coastal redwoods: These fast-growing trees are native to California's wettest areas with 100 inches or more of rain. With browned needles, they're frying and dying in drought-plagued Sacramento and can be fire hazards.
2. European white birch: A common lawn tree in Sacramento, they have short life spans, usually 35 to 40 years, and need consistent moisture to survive. For older birches, the drought has hastened their demise and made them a target of pests, especially birch borers.
3. Pines, several varieties: As evergreens, they try to grow and maintain leaves year round, but lack of water makes for weak branches and needle drop. Beetles target sick pines.