Drought curbs spread of sudden oak death in California

SLIDE 1 OF 2

Master gardener Alan Chesterman stands beside a large oak tha
at the Fairfield Osbourne Preserve in Rohnert Park on Thursday,
Burgess/The Press Democrat)

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Overall cases of sudden oak death, the scourge of California woodlands for a quarter-century, were cut in half this year by the ongoing two-year drought.

The latest annual survey by volunteers covered 14,804 acres and collected leaves from more than 2,000 trees, mostly bay laurels, in Central and Northern California. Their work revealed an estimated infection rate of 3.3%, half the rate in 2020 and comparable to the 3.5% rate in 2018.

Sonoma East, which starts just west of Highway 101 at S
highest by far out of 20 survey areas from Del Norte to S

But Matteo Garbelotto, director of the UC Berkeley laboratory that has organized the survey, known as the SOD Blitz, since 2008, discounted that figure, attributing it to the extensive sampling of trees on Sonoma Mountain.

The true infection rate in Sonoma East was more likely about 9%, only a little higher than the 8.3% rate last year.

Fairfield Osborn Preserve on Sonoma Mountain participates in the blitz each year and makes no effort to stem the infection that has killed more than 50 million trees in California and Oregon over two decades.

The 450-acre preserve, owned by Sonoma State University, is a research field station that stays hands-off to study the long-term effects of sudden oak death on the landscape, said Kerry Wininger, a UC Cooperative extension staffer in Santa Rosa.

It is also the place where the disease was first detected in Sonoma County in 2000, the year that a pathogen called Phytophthora ramorum was identified as the cause.

The disease was discovered in Marin County in 1995.

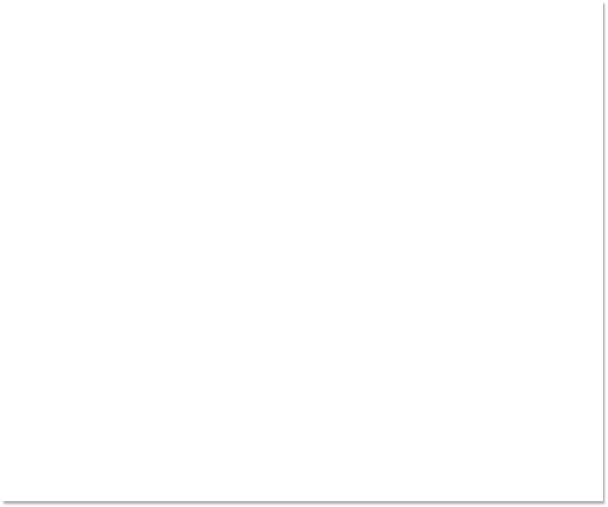
Sonoma North, which extends from Windsor to Cloverd
up slightly from 5% last year.

Sonoma West, a heavily infected area including the lowe
down from 5.1% last year.

Only the 3.3% regional rate — which covers 18 counties and dropped from 7.4% last year — makes for valid year-to-year comparisons, Garbelotto said, owing to the "haphazard" sampling by blitz volunteers.

All three Sonoma County survey areas exceeded the regional infection rate, as did Mendocino County at 3.8% and Marin County at 3.4%.

None of the 67 sampled trees in Napa County tested positive for the infection, nor did any of the 99 sampled trees in San Francisco.



No survey results were posted for Lake County.

Below average rainfall was the primary reason for the overall low infection rate this year, Garbelotto said.

The pathogen that causes sudden oak death — a fungus-like water mold — rides on droplets blown during warm spring rain from the leaves of bay laurel trees, a host species, to susceptible oak and tanoak trees.

"The disease comes in waves every time it rains a lot," he said

Residents in oak woodlands can take advantage of the l
infected bay tree close to a prized oak.

"These are the trees that will start the next outbreak," G

One disappointing result, he said, was finding two trees
more aggressive European strain of the pathogen.

The strain was first detected last year in the state's northernmost county and a "strong effort" was made to eliminate it, Gabelotto said.

Scientists in Oregon think the strain migrated across the border into California.

"It's good we know that it's still there," Garbelotto said. "They have more work to do."

There's no cure once a tree has been infected, but there are two lines of defense, he said.

The first step is to consider removal of bay laurels within 30 feet of a susceptible species of oak, followed by chemical treatment of any "high value" oaks, he said, emphasizing that landowners should not do the second step alone.

Coast live oak, California black oak, Shreve's oak and canyon live oak are vulnerable.

Most of the oaks now dying in Sonoma County are drought victims, not related to the infectious disease, Garbelotto said.

For details on the survey results, including a Google Earth map, go to https://bit.ly/2Ad57q6

For information on sudden oak death, including measures to protect your oak trees, go to https://nature.berkeley.edu/matteolab/?page_id=4262

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