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# California drought helps state save oak trees from deadly pathogen

As farmers abandon crops amid dust bowl conditions, scientists find ways to fighting contagious spores of 'sudden oak death'



[Rory Carroll](#) in Los Angeles

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Ooze from the bark of a California oak tree infected by sudden oak death. Photograph: Inga Spence/Getty Images/Visuals Unlimited

California's drought is worsening and turning farms to dust, but it is also helping to save oak trees from a deadly fungus and keep beaches clean from bacteria-saturated water.

The lack of rain has impeded a disease which kills the state's signature tree and reduced the amount of bacteria-laden water which contaminates the coast, according to reports this week.

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[crisis](#). Almost 33% of California is now suffering “[exceptional](#)” drought, the highest category, according to the US Drought Monitor. Everywhere else is enduring “severe” conditions.

Prices of fresh fruits and vegetables across the US will rise an estimated 6% in coming months, according to the Department of Agriculture. Avocados, berries, broccoli, grapes, lettuce, melons, peppers, tomatoes and packaged salads are [expected to be especially hit](#).

Some California farmers have [abandoned crops](#) for want of water. Others have uprooted trees and plants to save dwindling groundwater for crops. Some places have begun to resemble a dust bowl following three years of meagre rain.

It may offer limited consolation to farmers and consumers but the dryness has also assailed the contagious spores that have wiped out hundreds of thousands of oaks in a phenomenon known as sudden oak death.

Preliminary results of surveys taken in 17 western counties between April and June showed an infection rate of between two and 10% of California bay laurel trees – a big fall from the 20 to 80% during a year of normal rainfall, according to [the San Francisco Chronicle](#).

Identifying infected bay laurels is used to fight the tree-strangling pathogen because microbes live in bays before moving on to oaks. Sudden oak death, discovered here in 1995, was expected to kill 90% of California's oaks within 20 years.

Scientists said the drop in the infection rate gave them a chance to regain the initiative and target the host bay trees.

"The approach is to basically inflict a strike on the pathogen so that it will exist in fewer places and, as a result, its outbreaks will be smaller," Matteo Garbelotto, who heads the Forest Pathology and Mycology Laboratory at UC Berkeley, told AP.

"When we take down these trees, we are taking away the place where the disease finds shelter during these harsh times. We can't get rid of the pathogen, but maybe we can go from having 70% of the oaks being killed to maybe less than 5% of the oaks being killed. That's really, really significant."

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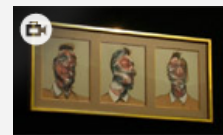
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Defense Council said 9% of water quality samples collected last year at California beaches contained bacteria levels that failed to meet the most protective threshold for swimmer safety – [slightly better than the nation's 10% average](#).

A separate last month from the group Heal the Bay gave 95% of California's beaches an A or B grade for 2013, a marginal improvement from the previous year.

Both groups cited a reduction in contaminated stormwater but stressed that this was no strategy to improve beach water quality. "Hoping for less rain is not a long-term solution," said [an NRDC blog](#).



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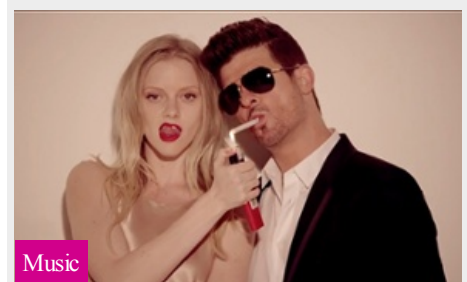
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**ID9845712**

25 June 2014 10:52pm

SOD the oak... Sudden Oak Death...

1



**Studynight**

25 June 2014 11:34pm

"Others have uprooted trees and plants to save dwindling groundwater for crops."

Sod all the other vegetation too then.

6

2 PEOPLE, 2 COMMENTS



**Dendros**

26 June 2014 8:48am

Southern California is existing on borrowed time...the groundwater can't withstand such punishment.

4



**LEDLAMP** ▶ Dendros

26 June 2014 10:55am

Western Australia is going the same way.

Wake up public, we're losing the world.

4



**Isfischer**

26 June 2014 9:34am

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2 PEOPLE, 2 COMMENTS



**shastalewis**

26 June 2014 3:24pm

Over 80% of the developed water in California is used in agriculture which provides under 5% of the State's economy. Alfalfa, rice, and cotton production use the lion's share of that water. Because of their huge water requirements, these crops are unsuitable for the Mediterranean climate that California enjoys. Farms enjoy special tax and water subsidies and many farms make no effort to use water effectively. "Rain birds", spraying thousands of gallons of water high into the air (in the middle of triple digit summer days), are a common sight.

As global warming continues, Californians will have to make hard choices about how we use water for agriculture and which crops are suitable for growth here. This will be difficult because of the powerful lobbies employed by the corporate farms and the complicity of politicians (of which many are "farmers").

2



**justanotherflyboy** ▶ shastalewis

26 June 2014 9:59pm

agreed! we need to give up the rice growing. move it somewhere the climate supports that kind of water use.

we had a similar occurrence here in northern California. there are rice

farmers around Tule Lake, who also use tremendous amounts of water to grow rice in what is basically semi-desert land. they have gone to court on multiple occasions to fight use of any state water to support the salmon and steelhead fisheries, claiming to be "just farmers trying to feed the country" and other such disingenuous phrases. they don't give a fuck about the rest of us, so long as they can keep growing rice in the fucking desert.

well, they'd best enjoy it while they can, cos I don't think we're gonna have that much water for them to use in the future. not the way things are going up here. winter is warmer and dryer than it used to be, summers are a lot hotter and even more dry than before.

doesn't really matter how hard the deniers try to ignore changing climate; they won't be able to irrigate with water that never fell to earth in the first place.

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