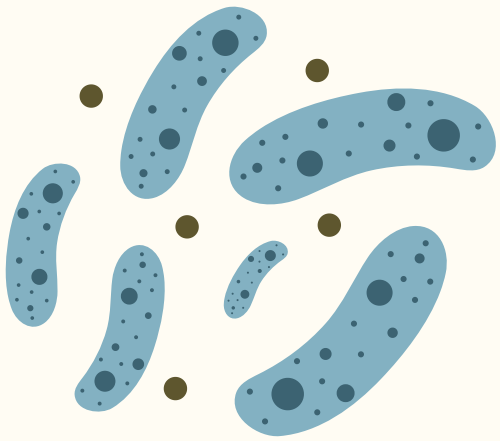
Plantastic Discoveries

WHY HAS OLIVE OIL GOTTEN SO EXPENSIVE?

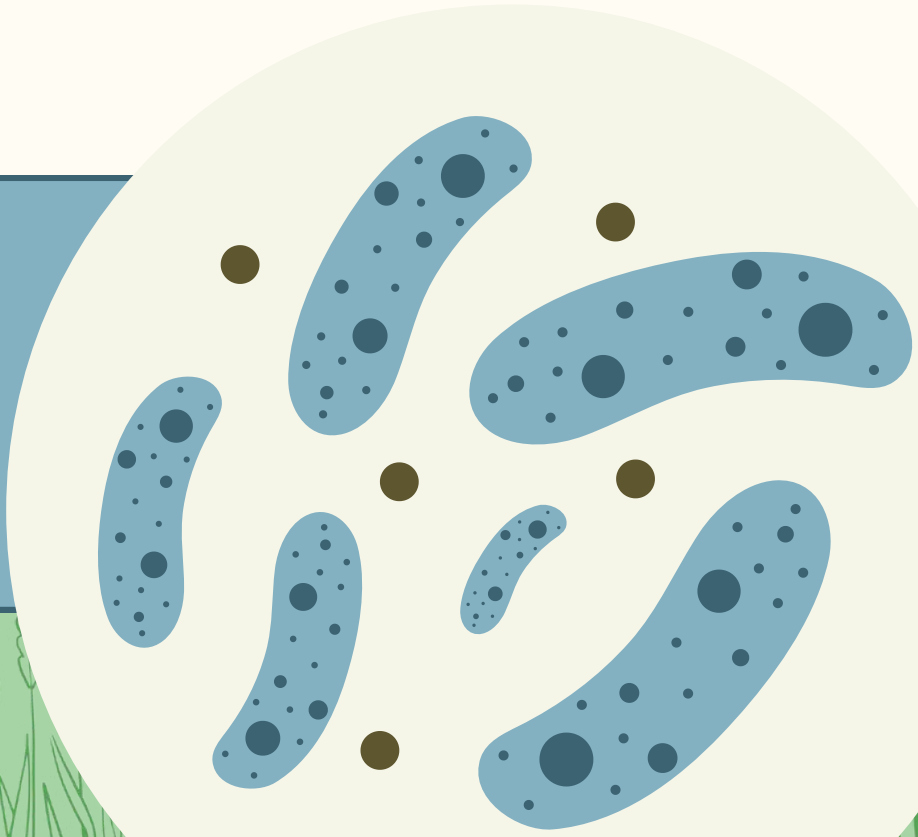


IN JANUARY 2024, THE PRICE OF OLIVE OIL IN THE EU WAS 50% HIGHER THAN IN JANUARY 2023.

Due to the shortage of olive oil supply across Europe.

Several issues are at fault for that, such as severe droughts, unfavourable weather patterns - all in climate-change driven extreme weather events are a major contributor.

But another important reason is the effect of the XYLELLA FASTIDIOSA *bacterium.*



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Olive trees are under attack by this bacterium, which is not native to Europe, but rather, has been inserted through import, and it can infect more than 600 plant species, including major agricultural crops such as grapevines, citrus fruits, almonds and olives.

Currently, there is **NO CURATIVE MEASURE** against Xylella fastidiosa. So to prevent the spread of disease, the contaminated plant must be grubbed up and destroyed, and the insects that spread the disease must be controlled.

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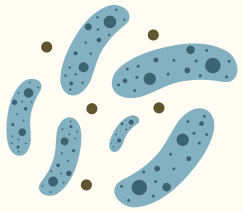
TIMELINE



2008

Xylella fastidiosa likely enters the EU through Puglia, Italy on an ornamental coffee plant imported from Costa Rica

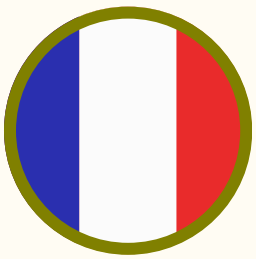
2010

Farmers from Puglia report the first signs of the disease (the disease incubation period can last more than 2 years)

2013

Xylella fastidiosa is officially detected for the first time in Europe in Puglia

2015

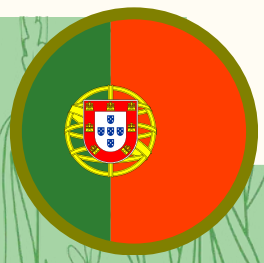


First detected in France

2016

First detected in Spain

2019



First detected in Portugal

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Puglia, Italy, where Xylella fastidiosa was first officially detected in 2013, was once the region that produced almost **HALF OF ITALY'S OLIVE OIL** .

In 2023, it was estimated that **6.5 MILLION OLIVE TREES HAD BEEN INFECTED** by the bacterium since.

Xylella fastidiosa has also been detected in olive trees in Spain, Portugal and France, as well as other plants.

The bacterium has already caused **DAMAGES** costing up to **1 BILLION EURO**.

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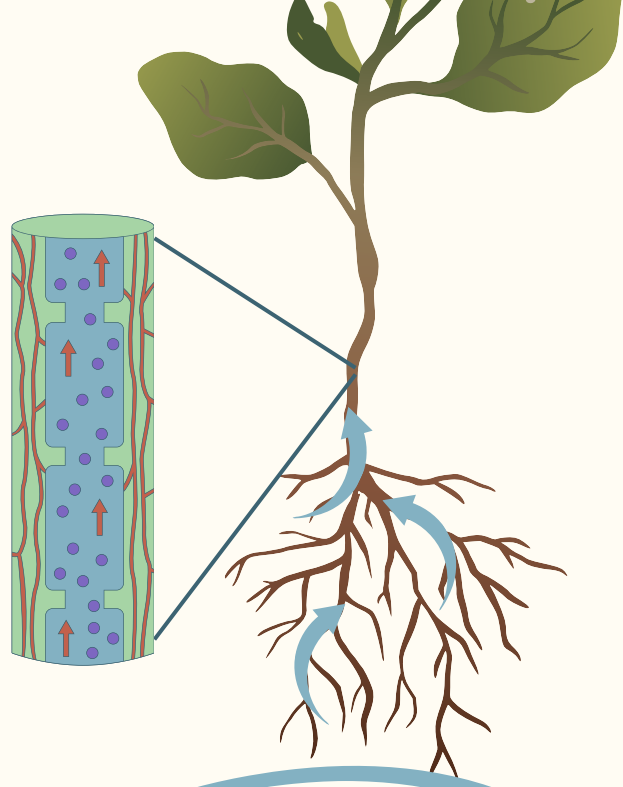
HOW DOES THE BACTERIUM SPREAD?

Xylella fastidiosa is transmitted by xylem-feeding insects, that then get infected themselves and transmit the bacteria from one plant to another.



Xylem is the vascular tissue responsible for transporting water and dissolved nutrients from the roots to the stems and leaves

Xylella is spread by various species of sharpshooter leafhoppers and spittlebugs.

The insects can spread Xylella over long distances as some sharpshooters are capable of flying long distances.

The Xylella bacterium can also be transmitted through the use of infected propagative plant material.

Asymptomatic infections or infections in the early stages can easily go undetected, allowing the spread of the bacterium through movement of infected but visually healthy plants.

HOW DID XYLELLA FASTIDIOSA GET IN THE EU?

At that time, there was very limited awareness and research in Europe about the Xylella fastidiosa bacterium and its potential impact, which contributed to the stringent control measures.

Many pathogens are harmless elsewhere because ecosystems evolved with them. While Xylella might have had a mild effect on coffee plants in Costa Rica, it thrived when it met the southern Italian olive trees - but that wasn't something anticipated.

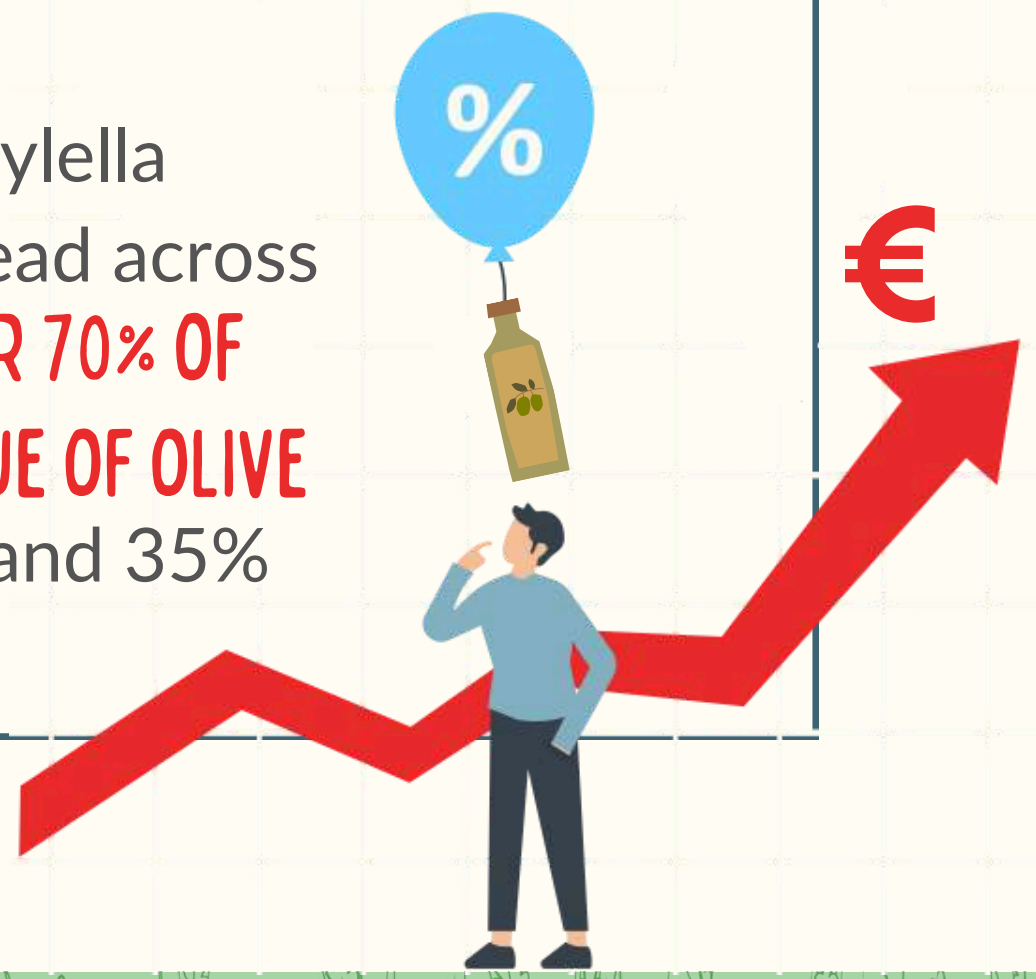
In 2016, the EU introduced new plant health regulations (the Plant Health Law - Regulation (EU) 2016/2031) to better manage what plants and plant materials get in and how, as well as how to deal with outbreaks quickly.

When Xylella fastidiosa first arrived in Italy, this stricter regulation wasn't in place. Now a days, phytosanitary measures are much stricter. And today, if a costumer or customs officer finds a disease or a bug on an imported plant, the whole shipment is tracked down and destroyed.

EXPECTED IMPACT

A recent report by the Joint Research Centre of the European Commission estimates that the full spread of Xylella fastidiosa could ultimately cost the EU **OVER €5.5 BILLION PER YEAR** due to loss of production, with potential export losses of €0.7 billion per year.

It is also estimated that if Xylella fastidiosa were to fully spread across the EU, it could affect **OVER 70% OF THE UNION'S PRODUCTION VALUE OF OLIVE TREES** older than 30 years, and 35% of the younger trees.



However, the olive oil crisis is just one example of the widespread damage that plant diseases can cause.

So if you travel this summer and see a beautiful plant you want to bring home, think twice. Undeclared plant materials in luggage are a major pathway for invasive pests and diseases to spread.

Let's all do our part to protect plant health and prevent the next crop disaster. **BE A RESPONSIBLE TRAVELLER**- leave plants where you find them and stick to souvenirs that won't come back to haunt us.

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ASK US

🌱 Got questions about plant science & breeding? We've got answers!
Join Plant ETP's campaign to feed your curiosity! 🌿
Ask your questions here:
tinyurl.com/bdzhepr9

Download the post to access the links!

LEARN MORE

How Xylella came to Apulia - Nature Italy

Saving Mediterranean olives from a destructive disease - FAO

Xylella Fastidiosa - European Commission

Update of the Scientific Opinion on the risks to plant health posed by Xylella fastidiosa in the EU territory - EFSA Panel on Plant Health

Price of olive oil up 50% in one year - Eurostat

Xylella Arrived in Italy from a Costa Rican Coffee Plant, Researchers Say - Olive Oil Times

Plant apocalypse: how new diseases are destroying EU trees and crops - The Guardian