



&gt;&gt;&gt; NEWSLETTER &lt;&lt;&lt;

# SAFEWAX NEWS

Sustainable Crop Protection Inspired By Nature



## SAFEWAX: FROM LAB TO LANDSCAPE

**FIELD TRIALS,  
TECHNICAL REFINEMENT,  
AND FUTURE GROWTH**

The SafeWax project reaches a pivotal turning point. Following the comprehensive discussions and insights gained during our consortium meeting in Bologna, we are now shifting our focus from the lab to the landscape.

A highly successful online review meeting was held in fall 2025, attended by all project partners and evaluated by a panel of experts.

This fourth edition of our newsletter highlights the transition into our final scaling phase. With the foundational research of 2025 behind us, our current efforts are dedicated to fine tuning our bio-based coating for large scale agricultural application. Our goal is clear: to ensure that the innovative solutions developed by our partners provide robust, sustainable protection for the upcoming growing seasons.

In this issue, we provide updates on our technological optimizations, and share our vision for the months ahead.



## EU SCIENCE & TECHNOLOGY DELEGATION VISIT AT THE TECHNION



Prof. Boaz Pokroy with Gediminas Ramanauskas, Head of Section, Delegation of the European Union to the State of Israel

To explore the impact of EU research funding, in November 2025, 15 science attachés from European embassies visited the Technion. The event featured Prof. Boaz Pokroy, who presented the SafeWax project as a prime example of success within the Horizon Europe and Horizon 2020 frameworks. The visit reaffirmed the Technion's commitment to international cooperation and its key role in the EuroTech Universities Alliance.

## REVIEW MEETING

A highly successful online review meeting was held in fall 2025, attended by all project partners, during which the project's scientific and innovation progress was evaluated by an external expert panel. Notably, the Innovation Radar assessment highlighted the strategic repositioning of SafeWax as a protective physical barrier as a highly innovative advancement with strong commercial potential.

Ongoing progress translates SafeWax's potential into proven applications for sustainable agriculture, delivering innovative and practical crop protection solutions to the field



## CONCEPT PAPER ON SAFEWAX

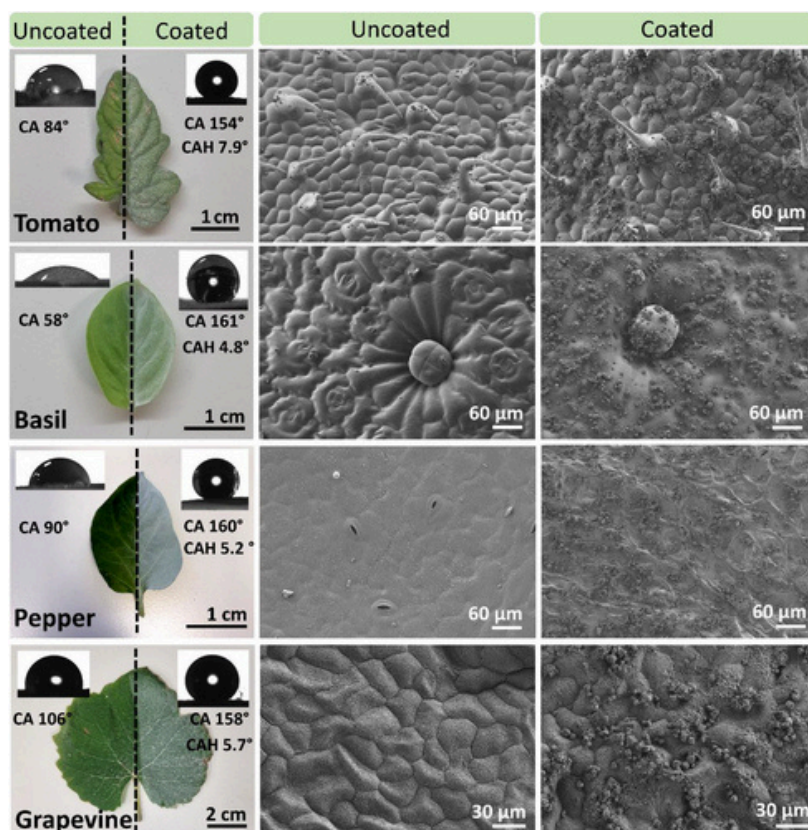
NANO · MICRO  
small

***SafeWax: A Bio-Inspired Multifunctional Coating for Sustainable Crop Protection***

Published in Small, our concept paper introduces SafeWax, a breakthrough biodegradable coating designed to replace toxic pesticides. Developed by an international team including Technion researchers, this biomimetic technology draws inspiration from the lotus leaf to create a superhydrophobic barrier that prevents fungal spores from adhering to crops. This sustainable approach directly aligns with the European Green Deal's goal of reducing pesticide use by 50% by 2030.

Beyond disease prevention, SafeWax provides a multifunctional shield against climate stressors like extreme UV radiation and dehydration. Its self-cleaning property also facilitates dew collection, boosting plant resilience without interfering with photosynthesis. Successful trials on grapevines and tomatoes demonstrate that SafeWax is a vital, eco-friendly tool for maintaining high yields while minimizing the agricultural ecological footprint.

[Link to the paper](#)



Demonstration of the SafeWax coating on plant leaf surfaces.

Left column – photographs of leaves from four different plants and their water contact angles (CA) and contact angle hysteresis (CAH) before and after coating. Middle and right columns – HR-SEM images of the leaves before and after coating, respectively.



SAFEWAX IN THE PRESS

From the article on the *Agronotizie* website

SafeWax and Superhydrophobicity: A Natural Phenomenon at the Service of Vineyard Protection.

[Link to the article](#)



From the article on the *Hayom* website

The end of pesticides? Technion researchers find solution for plant diseases.

[Link to the article](#)

From the article in the *Jerusalem Post*

Israeli researchers develop SafeWax coating that could cut pesticide use by 50%

[Link to the article](#)



From the article on the *Food & Wine* website

Scientists Created a Plant-Based Wax That Could Cut Pesticide Use by 50%

[Link to the article](#)

From the article in the *Advanced Science News*

Pesticide-free, climate-smart agriculture with "SafeWax"

[Link to the article](#)



This growing global media coverage reflects SafeWax's increasing influence as a leader in the shift toward sustainable and pesticide free viticulture.



➤➤➤ SAFEWAX IN THE SPOTLIGHT: CAPTURING GLOBAL SCIENTIFIC INTEREST

SafeWax has been actively showcased across a wide range of scientific platforms through high impact posters and oral presentations. By engaging with diverse audiences, including researchers, students and industry professionals. The project has established a strong presence in plant protection, bio-inspired materials and sustainable agriculture.

Key dissemination milestones include presentations at the Italian Society of Plant Pathology Conference (SIPaV), Russel Berrie Nanotechnology Institute (RBNI) Scholarships & Prizes for Excellence in Nanoscience & Nanotechnology event, annual meeting of the Israel Vacuum Society (IVS), the Israel Plasma Science and Technology Association (IPSTA) and the 18th International Symposium on Biomineralization (BIOMIN XVIII).

These occasions provided project visibility, sparked technical dialogue and forged strategic connections within the scientific community, laying a robust foundation for future collaborations and sustainable agricultural impact.



Alice Brannetti at the SIPaV conference. Wining the “Young Researchers in Training” award



Niv Ben-Arie at the RBNI event. Awarded an excellence scholarship



Niv Ben-Arie at the BIOMIN XVIII International Symposium



Niv Ben-Arie at the IVS-IPSTA annual meeting. Winning the poster award



# LOOKING AHEAD >>>

## Join Us in 2026.

Following our successful tour across the 2025 scientific circuit, we are excited to continue the conversation. Stay tuned for our upcoming 2026 event schedule, where we will be presenting our latest field trial results and technological breakthroughs. We look forward to meeting you at the next major industry forums.

Let's shape the future of sustainable agriculture together.

## >>> STAY TUNED

**FOLLOW SAFEWAX ON SOCIAL MEDIA FOR UPDATES ON OUR SUSTAINABLE WAX COATING PROTECTING CROPS FROM FUNGAL PATHOGENS AND ENVIRONMENTAL STRESSORS**



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Funded by  
the European Union

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