



3 QUESTIONS TO

DR. FANI HATJINA

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**WINNER OF THE PRIMA WOMAN
GREENING FOOD SYSTEMS AWARD**



Biologist and bee expert Dr. Hatjina, from the Hellenic Agricultural Organization 'DIMITRA', was awarded for her "**SafeAgroBee**" project.



This initiative focuses on safeguarding agroecosystem resilience through efficient pollination and sustainable beekeeping. The project develops innovative monitoring tools and precision apiculture systems while investigating the adaptability of local honey bee populations under climate change conditions.

The project also pioneers a unique Citizen Science approach, engaging local communities and stakeholders in bee conservation while developing a novel Health Status Index to predict bee colony productivity and pollination service efficiency.



Why are bees so critical to Mediterranean food systems, and how does your initiative ensure their survival?

“Bees are essential to all ecosystems, playing a vital role in pollination.

The Mediterranean region, known for its vast biodiversity and diverse climatic conditions, relies on bees not only for pollination efficiency but also for their ability to adapt to changing climates.

The SafeAgroBee project (PRIMA) demonstrated the superior adaptability of local genetic bee resources, the potential of beneficial bacteria strains from native bee populations to combat harmful bacterial diseases, and the importance of bee-friendly agricultural and organic beekeeping practices in enhancing bee survival.

The strong adaptability of local bee populations is crucial for ensuring long-term sustainability, particularly in the face of future climate challenges.”





How does your Citizen Science approach engage local communities in pollinator conservation?

“In the SafeAgroBee project (PRIMA), we applied a Citizen Science approach involving three key stakeholder groups: beekeepers, farmers, and university students. Although on a small scale, we actively engaged them in our experimental methodology, fostering hands-on participation.

*By doing so, we facilitated knowledge transfer and practical experience in monitoring the factors affecting pollinator survival and well-being. We believe this initiative has **laid the foundation for stronger collaboration between farmers and beekeepers**, benefiting both communities and the environment.”*





What are some of the innovative tools you've developed to monitor bee health and productivity under changing climate conditions?

“The innovations we developed in the SafeAgroBee project include:

- i) incorporating sound analysis into precision apiculture monitoring tools,*
- ii) using beneficial bee bacteria to combat harmful bacterial diseases,*
- iii) developing the novel Health Status Index (HSI) model to predict honey bee colony health by simplifying the complex interactions affecting colony well-being into a single HSI value,*
- iv) developing an individual-based model to evaluate crop carrying capacity, bee pollination efficiency, agroecosystem resilience under different environmental scenarios, and forecast honey colony productivity.*

Both models aim to support decision-making.”





All Pictures: ©Fani Hatjina

Learn more:

<https://www.safeagrobee.com/>



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