



# Insect Farm - DISTAL Lab

## **Descriptive Summary**

Step into the world of sustainable agriculture as we grow the insect *Galleria Mellonella* for scaling up in developing countries at the "Insect farm - DISTAL Lab". This small but innovative facility at the University of Bologna is at the forefront of researching sustainable, circular, and cost-effective methods for the production of *Galleria Mellonella*. Beside this main scope, DISTAL Lab also foresees the integration of experimental simplified hydroponic systems to implement the research on sustainability and circularity of cultivation systems for household consumption and small business development in emerging countries. Join us in our quest to expand the horizons of eco-friendly insect farming and accessible simplified hydroponic systems, and unlock the potential for a greener and more sustainable future.

## **Background**

The insect farm was developed basing on the UNIBO team entomological knowledge on the life cycle and breeding of this specie, normally considered as a harmful insect for beehives. It aims to favor the development of alternative low-cost alternative proteins.

## **Aims and Goals**

The primary objective is to investigate and develop sustainable methods for the production of *Galleria Mellonella*, integrating in the diet industrial wastes (e.g., bakeries wastes). Furthermore, the research wants to evaluate the nutritive properties in case of applications as fish and chicken feed.

## **Actions taken**

Research on alternative diets for *Galleria mellonella* has just started and a capacity building on insect farming is foreseen for autumn 2024.

## **Main Achievement to date**

The larvae of *Galleria Melonella* could be produced at large-scale in industrial facilities but also by non-mechanized and low investment technologies, and could be attractive to farmers in northern Mediterranean countries such as Greece or Italy, but also in Morocco, Jordan, Tunisia, and Turkey.

A Value Chain for Development (VC4D) analysis for insects has been undertaken.

Baseline data for WEF E Nexus and livelihood impact analysis has been collected.

### **Partners**

Universität der Bundeswher aquaponik manufaktur Foodscale Hub Ben Gurion University of the Negev Alma Mater Studium Universita Di Bologna National Agricultural Research Center University Mohammed VI Polytechnic Elbosten Euroscolar Türkiye Bodrum Municipality

### **Lessons, replicability and scalability potential**

**Scalable technologies:** Developing technologies and farming practices that are scalable and adaptable to different environments, resource constraints, and socioeconomic contexts. This might involve designing modular systems or providing guidelines for customization based on local conditions.

**Cost-effectiveness:** Ensuring that the methods and technologies employed are cost-effective and accessible to a wide range of users, particularly in resource-constrained settings. This might involve optimizing resource use, reducing input costs, and identifying low-cost alternatives for equipment and materials

### **Affiliation**

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### **Keywords**

Circular Economy Insect farming Hydroponic systems Sustainable agriculture

### **Country**

Italy

### **Start year**

Mon, 01/01/2024 - 12:00

### **Facebook**

<https://www.facebook.com/frontagnexus/>

### **Twitter**

[https://twitter.com/i/flow/login?redirect\\_after\\_login=/frontagnexus](https://twitter.com/i/flow/login?redirect_after_login=/frontagnexus)

### **LinkedIn**

<https://www.linkedin.com/company/frontag-nexus/>

### **Acknowledgement of funding source**

PRIMA

**Total funding**

100 - 500k €

**Environmental**

High

**Social**

Medium

**Technological**

High

**Financial**

Medium

**Institutional**

Medium

**SDGs****YouTube**

<https://www.youtube.com/@FrontAgNexus>

**Website**

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**Nexus Dimensions**

Ecosystems

Food

**City**

Bologna

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**Source URL:** <https://wefe4med.eu/demo/insect-farm-distal-lab>