



Insect Farm - DISTAL Lab

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Background

The insect farm was developed basing on the UNIBO team entomological knowledges on the life cycle and breeding of this specie, normally considered as a harmful insect for beehives

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.

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

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.

Name

Elisa Appolloni

Keywords

Circular Economy Insect farming Hydroponic systems Sustainable agriculture

Country

Italy

Facebook

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

Twitter

https://twitter.com/i/flow/login?redirect_after_login=/frontagnexus

LinkedIn

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

Environmental

High

Social

Medium

Technological

High

Financial
Medium

Institutional
Medium

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

Featured Image

The poster for the FrontAg Nexus project features a map of Europe in the background. The top left displays the 'FrontAg+Nexus' logo with the tagline 'Cultivating Sustainable Agricultural Practices Across the Mediterranean'. Below this, the Alma Mater Studiorum University of Bologna logo is shown. A central text block welcomes visitors to the 'Insect farm - DISTAL Lab', a demonstration case within the FrontAg Nexus Project. To the right of this text is a map of Italy with a red dot indicating the location of the Insect farm - DISTAL Lab. Below the map, a section titled 'About FrontAg Nexus' describes the project as a 3-year initiative involving 10 partners to scale up frontier agriculture. Another section, 'Bugs for a Sustainable Future', details the production of Galleria mellonella for scaling up in developing countries. A large circular inset on the right shows a close-up of white, segmented insect larvae. Below this inset is a circular logo for 'Insect Farming Hydroponics'. The bottom left section, 'VISITOR INFORMATION', provides the location (University of Bologna, Italy), contact details (Elisa Appolloni), and a list of cultivations (Lettuce, Herbs, Kale, Strawberries). A QR code is also present. The bottom right section, 'Get in touch!', includes social media icons and the website 'frontagnexus.eu'. The bottom of the poster features a 'PARTNERS' section with logos for various institutions, including the University of Bologna, the University of Munich, and the European Union. The top right corner includes the PRIMA logo and a statement that the project is part of the PRIMA programme supported by the European Union.

FrontAg+Nexus
Cultivating Sustainable Agricultural Practices Across the Mediterranean

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DEPARTMENT OF
AGRICULTURAL AND FOOD SCIENCES

Welcome to the **Insect farm - DISTAL Lab**,
a demonstration case
within the FrontAg Nexus Project.

About FrontAg Nexus

FrontAg Nexus is a 3-year project bringing together 10 partners to scale up the adoption of frontier agriculture as a multi-solving intervention in different contexts, ultimately generating sustainable benefits for the Water, Energy, Food, and Ecosystem (WEFE) Nexus and the livelihoods of the stakeholders.

Bugs for a Sustainable Future

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.

VISITOR INFORMATION

Location
University of Bologna, Italy

Contact
Elisa Appolloni (elisa.appolloni3@unibo.it)

Insects
Galleria mellonella

Cultivations
Lettuce, Herbs, Kale, Strawberries

Join Us
Become part of the sustainable agriculture revolution in Bologna.

Get in touch! frontagnexus.eu

PARTNERS

PRIMA
Co-funded by the European Union

This project (GA no [2242]) is part of the PRIMA programme supported by the European Union.

Website
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Nexus Dimensions
Ecosystems
Food

City
Bologna

Visibility
Public

Source URL: <https://beta.toolbox.venthic.com/demo/insect-farm-distal-lab>