



**ADVancedAGROecological approaches
based on the integration of insect farming
with local field practices in MEDiterranean
countries**





SUMMARY

1. GREETINGS FROM THE PROJECT COORDINATOR
2. ADVAGROMED PROJECT
3. KICK-OFF MEETING
4. WPs UPDATES: FIRST DELIVERABLE SUBMISSION (WP2)
5. PARTNERS
6. CONTACTS



GREETINGS FROM THE PROJECT COORDINATOR

PROF. LAURA GASCO



Dear all,

In the first **ADVAGROMED** newsletter I would present myself and the achievement reached until now from the partners.

I was born in Lubumbashi (Congo) and spent my childhood and teen age in Kinshasa. When I was 18, I moved to Belgium to start my Agricultural Engineering studies at the Catholic University of *Louvain la Neuve*. I did my master thesis in Italy, at the experimental farm of the former Department of Animal Sciences of the University of Turin (UNITO), being one of the first income Erasmus. The thesis concerned the use of an antibiotic as growth promoter in rainbow trout. And, this is where the love for fish production and nutrition started. After my graduation (1992), I spent one year in Ireland (University of Limerick) obtaining a Diploma in Business Administration. In 1993, I moved back to Italy where I worked at the UNITO experimental farm, get my PhD in Animal Science discussing a doctoral dissertation on the “*In vivo* digestibility of formulated feed for fish”, a M.SC in Agricultural, and finally, get a permanent position as researcher.

I am now Full-Professor at the **Department of Agricultural, Forest and Food Sciences** and my research focuses on aquaculture, rabbit and poultry. In particular, the researches focused on the breeding, nutrition, and product quality. I have technical expertise in fish, poultry and rabbit feed formulation, breeding and nutrition, in *in vivo* digestibility trials using inert markers (chromic oxide, celite), in analytical chemistry and biochemistry (total N, ether extract, crude fibre, NDF, ADF, ADL, ash) of raw material and animal products, and in chemical quality parameters in different samples (meat, fish).

In 2012, I discovered the “insect world” and I became deeply involved in trials on insects as potential raw material in fish and poultry nutrition in collaboration with Italians and foreign research groups. Since then, I coordinate the UNITO research group “**Insects4Feed**”. I’m the coordinator of the relative Italian Animal Science and Production Association Commission (**ASPA**) “The use of innovative protein sources in animal feeds” and in August 2022, I was elected as **President of the European Federation of Animal Science Insect Commission**. I have been involved in Italian and international projects related to the use of alternative protein sources or additives in animal nutrition and, more recently, in the use of insects in aquaculture and livestock production. I have published over 190 research articles and papers and I have often been invited to speak at national and international conferences and symposiums presenting lectures on the “Insect as feed” topic.

The project is well underway, all partners have mapped and chemically analysed the local by-products for the formulation of growth substrates for insects. Soon the first experimental tests will begin to determine the diet that will be used for large-scale production.

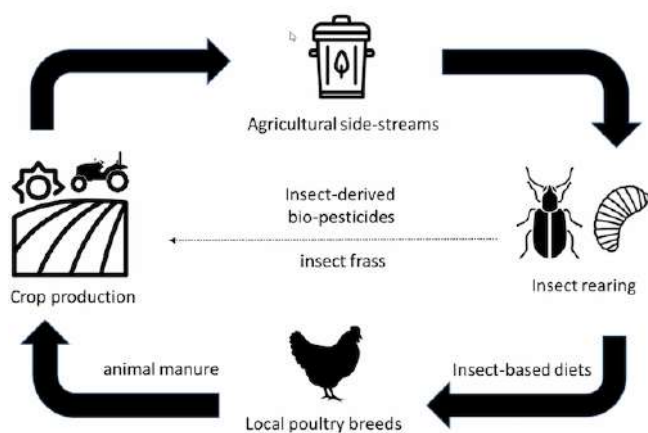
I wish all members of the research teams good work!

ADVAGROMED PROJECT

“**ADVAGROMED** – **ADV**anced**AGRO**ecological approaches based on the integration of insect farming with local field practices in **MED**iterranean countries --, is an innovative project that combines insect breeding with conventional farming practices to ensure a new pathways towards sustainability.

Funded by the **PRIMA program** (Partnership for Research and Innovation in the Mediterranean Area) of the Ministry of University and Research, ADVAGROMED will be able to count on a total budget of €1,296,214.17 and will last **3 years** (September 2022 - September 2025).

ADVanced AGROecological approaches based on the integration of insect farming with local field practices in MEDiterranean countries



The project sees the participation of universities and institutes from six different countries:

- University of Turin and National research Council (**Italy**)
- University of Thessaly (**Greece**)
University of Sultan Moulay Slimane (**Morocco**)
- Servicio Regional de Investigación y Desarrollo Agroalimentario (**Spain**)
- Deutsche Institut für Lebensmitteltechnik.V. (**Germany**)
- Ingredient Odyssey Lda (**Portugal**).

The aim is to develop, evaluate and promote an **innovative farming system** adapted to the unique Mediterranean conditions by exploiting the unique advantages of **insect** production in conjunction with basic **agroecological** principles. To achieve this goal, ADVAGROMED aims to use insects as bioconverters of local by-products and exploit the main insect products (frass and live larvae) from an agroecological perspective, in order to render this novel farming system a feasible production system for farmers and associations located in **Mediterranean countries**.

KICK-OFF MEETING



On the 2nd of September 2022, the project kick-off meeting was held in presence and online at the UniTo University AGROVET campus, in Grugliasco - Turin.

The kick-off agenda started with an introduction to the Advagromed project, followed by the description of the 6 Work Packages (WPs) by each team leader:

- **WP1: Coordination and project management** (Laura Gasco, DISAFA UNITO, Italy)
- **WP2: Local agricultural by-products as substrate for insects** (Christos Athanassiou, UTH, Greece)
- **WP3: Local poultry breeds fed insect-derived products** (Ilaria Biasato, UNITO DISAFA, Italy)
- **WP4: Use of insect frass and poultry manure in sustainable agricultural processes** (Angelo Parente, CNR ISPA, Italy)
- **WP5: Environmental and economic impacts and consumer acceptance of novel farming systems** (Sergiy Smetana & Adriano Profeta, DIL, Germany)
- **WP6: Dissemination, exploitation and communication** (Laura Gasco, DISAFA UNITO, Italy)

The discussion between the partners was very fruitful and enriching. A future meeting, discussing the advancement of the project, will be planned .



WPs UPDATES: 1° Deliverable submission (WP2)

Recently, the first project deliverable has been successfully submitted, “**D2.1 By-product composition: report on the nutritional composition of by-products**”, focusing on the **nutritional composition** and suitability of several **by-products** as insect feeding substrates for the two most commonly reared edible insect species, i.e., *H. illucens* and *T. molitor*.

This deliverable is part of **WP2, Task 2.1** “Collection and nutrient composition analysis of agricultural by-products”.

Several studies confirm that the exploitation of agricultural by-products for insect rearing could offer a possibility for considerable **reduction of the production cost**, whereas it contributes to the enhancement of the **sustainability** profile of insect production.

In this document **ADVAGROMED** partners identified, collected and chemically characterized local agricultural by-products of low or no economic value of each country.

The valorisation of agricultural side-streams for insect rearing could be helpful for the Mediterranean Basin to better exploit **locally available resources** for the local production of animal feeds and subsequently decrease the dependency of Mediterranean countries on imported resources.

This deliverable will be available to the public at the ADVAGROMED official website in the next months.



PARTNERS

Discover the teams involved



UNIVERSITÀ
DI TORINO



UNIVERSITY OF
THESSALY



SERIDA

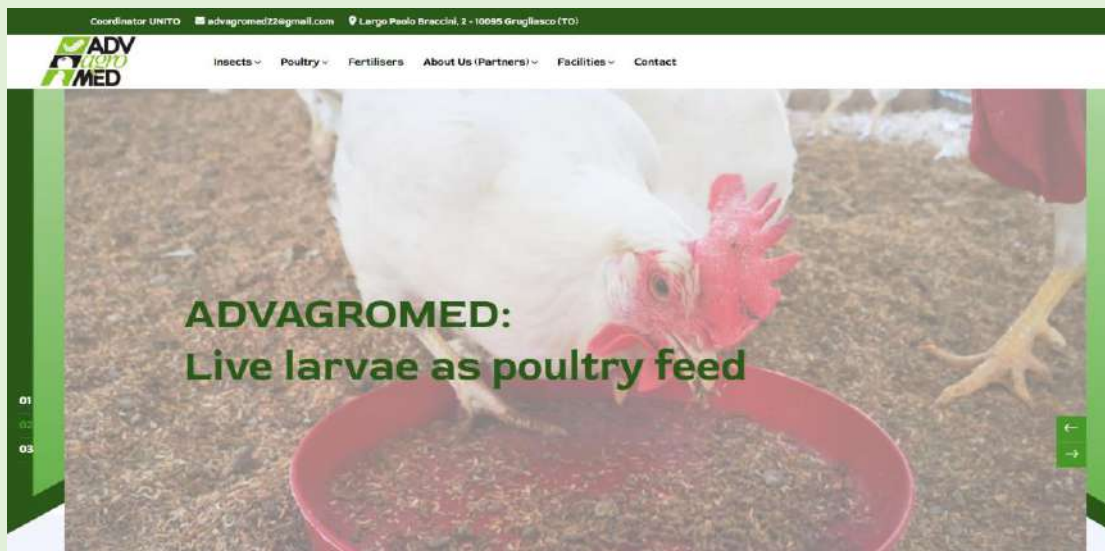


جامعة السلطان مولاي سليمان
Université Sultan Moulay Slimane



CONTACTS

For more information about Advagromed project follow us on:



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Twitter:

<https://twitter.com/advagromed22>

You can also send an e-mail to:
advagromed22@gmail.com

