

Insects Innovation in Gastronomy

COURSE SUPPORT



Module 1 Unit 1:

A Brief History of Eating Insects Until Current Times

•
Disclaimer:

This project is co-funded with the support of the European Union.

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.



Course Support

Module 1 Unit 1: A Brief History of Eating Insects Until Current Times

Table of Contents

Key Insights & Takeaways:

The Rise of Entomophagy in Modern Europe.....	1
Examples of Insect Consumption in Europe.....	2
Final Thought.....	3

Course Support

Module 1 Unit 1: A Brief History of Eating Insects Until Current Times

Module 1: Introduction to Edible Insects in Gastronomy

Unit 1: A Brief History of Eating Insects Until Current Times

The consumption of insects by humans has a long history, dating back to prehistoric times. It is highly likely that insects were part of the human diet long before the development of hunting tools and agriculture.

One of the earliest known depictions of insect consumption in Europe is found in the cave paintings of *La Cueva de la Araña* in Valencia, Spain. These paintings, dating from between 9000 and 1400 BCE, depict a honey collector surrounded by bees, carrying a bag for transporting honeycombs. This suggests that both honey and possibly bee larvae were valued as food sources.

Throughout history, insects have been referenced in various ancient texts. For example, the Bible permits the consumption of locusts and crickets (Leviticus 11:22). Greek philosophers such as Aristotle also mentioned insect consumption, recognizing their nutritional value. The Roman naturalist Pliny the Elder documented the use of locusts and other insects in the Roman diet, highlighting their culinary and nutritional significance.

In Mesoamerica, civilizations like the Aztecs and Mayans regularly consumed insects. Among the Aztecs, *chapulines* (grasshoppers) were considered a delicacy.

During the Middle Ages, food shortages and famines were common, forcing people to diversify their diets. Insects, including bumblebees, were often cooked and added to soups, particularly in Central and Southern Europe.

By the Renaissance, the study of entomophagy (the practice of eating insects) gained scientific interest in Europe. Physicians and naturalists such as Andrea Bacci and Pierre Belon wrote about the culinary and medicinal benefits of insects. In the 16th century, Italian naturalist Ulisse Aldrovandi emphasized the nutritional potential of insects, even suggesting that farming them could provide an abundant and cost-effective food source.

The Rise of Entomophagy in Modern Europe

In recent years, interest in entomophagy has grown in some European countries as part of a global movement toward more sustainable and alternative protein sources. This renewed interest is driven by environmental concerns, the need for sustainable food systems, and the high nutritional value of insects. Some chefs are also incorporating insects into their culinary creations as a way to innovate in modern gastronomy.

Course Support

Module 1 Unit 1: A Brief History of Eating Insects Until Current Times

Examples of Insect Consumption in Europe

Belgium

Belgium was the first European country to legalize insect consumption. Belgian companies have been producing insect-based food products for years. One of the pioneers in this field was Maïté Mercier, a bioengineer and co-founder of *Little Food*, the first farm dedicated to cricket breeding and production. Today, *Little Food* is part of *Nimavert*, a leading Belgian company specializing in insect-based food products.

France

France has begun integrating insects into its cuisine, mainly in gourmet and innovative products such as snacks and high-end dishes. *Ÿnsect* is a pioneering company in this industry, focusing on the potential of mealworms. It operates the world's largest vertical insect farm, spanning 45,000 square meters and 36 meters in height.

Ÿnsect's food division, *AdalbaPro*, produces:

- **Mealworm oil:** Semi-solid at room temperature, with a rich composition of fatty acids and a mild nutty flavor.
- **Mealworm powder:** A protein-rich ingredient packed with essential amino acids, fiber, healthy fats, iron, and vitamin B12.
- **Textured insect protein (FTIP):** With a meat-like texture, FTIP browns and cooks similarly to conventional meat, making it a viable alternative for plant-based protein products.

Although entomophagy is not widespread in France, some chefs are working to promote insect-based cuisine. One example is *Laurent Veyet*, the owner of *Inoveat*, a restaurant that serves a tasting menu featuring crispy insects with vegetables and chocolate-coated grasshoppers.

Spain

In Spain, insect consumption is still in its early stages but has been growing due to increasing awareness of sustainable and innovative food practices. The leading Spanish company in this sector is *Tebrio*, a world leader in the production and processing of *Tenebrio molitor* (mealworm). However, they are still in the process of expanding into the human food market.

For direct-to-consumer sales, *Insectum*, a Valencian store, offers a wide range of insect-based products both online and in its physical store. Their best-selling products include insect powders, dried insects, protein bars, and cookies.

Switzerland

Interest in edible insects is rising in Switzerland. The website *Gourmet Bugs* aims to demystify and promote entomophagy by offering locally produced insect-based foods. Their product lineup includes chocolate-covered crickets and high-protein pasta made with crickets and mealworms.

Course Support

Module 1 Unit 1: A Brief History of Eating Insects Until Current Times

Germany

Although insect consumption is not part of traditional German cuisine, the country has been experimenting with insects as an alternative protein source. *Mikrokosmos*, a restaurant in Berlin, is one of the pioneers in introducing edible insects to its menu. Some of their featured dishes include:

- **Fritto Misto:** A mix of fried insects served with herbs and homemade sauce.
- **Chapulines (Mexican-style crickets):** Crickets marinated in lime, chili, fresh cilantro, and onion.

Additionally, the online store *SnackInsects* has been selling edible insect products in Germany for years, offering items such as chocolate-covered *Tenebrio molitor* and cricket-based snacks.

Italy

Founded in 2020, the Italian company *ALIA* aims to promote insect-based foods and their benefits. One of their key products is **ultra-fine cricket powder** made from *Acheta domesticus*, a high-quality ingredient entirely produced in Italy.

While insect consumption is not yet widespread in Italy, there is growing interest in innovative food products incorporating insects. For example, the restaurant *Pane e Trita* offers the *Grillo Cheeseburger*, made with a green artisan bun, a cricket-powder patty, melted scamorza cheese, purple cabbage, crispy sweet potato, and a special sauce. This burger is high in protein and low in fat and carbohydrates.

Conclusion

We hope this unit has provided an insightful introduction to entomophagy and the early stages of integrating edible insects into European gastronomy. As awareness of sustainable food sources grows, the role of insects in the global food system is likely to expand, offering innovative and eco-friendly culinary possibilities.