

NOVEL FOOD

What are?

Novel foods are foods or ingredients that are "new" to those traditionally understood. This concept was introduced to significantly differentiate them from the products consumed before the EU Regulation 258 of 1997. These foods are therefore not new to consumers, in fact this diversification was made in order to provide greater protection to European citizens.

Despite the arrival of OGM, the need was recognized for new foods to be evaluated on the basis of their safety before being consumed in order to avoid possible negative effects on health.

It is curious to think that on our tables there are foods, regularly consumed therefore not "new", which cause allergies as well as contain toxins, even if at low levels, which if they were to be introduced into the diet today, would certainly not be allowed.



...in the EU

Article 1 of EC Regulation 258 of 1997 distinguishes 4 categories of new products and novel food ingredients as follows:

- a) food products and food ingredients with a new or deliberately modified primary molecular structure;
- b) products and food ingredients consisting or isolated from microorganisms, fungi or algae;
- c) products and food ingredients consisting of plants or isolated from plants and food ingredients isolated from animals;
- d) food products and food ingredients subjected to a production process not generally used which leads to significant changes in the nutritional value, their metabolism or the content of undesirable substances.

All products belonging to the 4 different categories, to be placed on the market, must meet the same criteria:

- 1) they must not be risky for the consumer
- 2) must not mislead the consumer
- 3) they must not differ from those foods for which they are intended as a replacement so as not to have nutritional disadvantages.

The labeling

Sometimes foods that are new in one country may be traditionally eaten in others, therefore the application submitted by the applicant in his own country will pass from a commission through the commissions of the Member States with all the information useful to demonstrate compliance with the established criteria as well as the labeling of the product.

If a scientific evaluation based on an appropriate analysis of existing data shows that the characteristics of the product are different from those of a conventional food or ingredient. In this case, the labeling must mention these characteristics by reporting:

- indications of the presence of substances which are not present in an existing equivalent food or ingredient and which may have an impact on health;
- indications of the presence of substances not present in an existing equivalent food or ingredient and which have ethical repercussions;
- indications of the presence of genetically modified organisms.

In conclusion, only foods that pass this complex practice are placed on the market.

Edible insects

In 2050 we will be more than 9 billion people, we will live on a planet with increasingly scarce resources, less arable land available, water pollution, deforestation caused by grazing and global climate warming. How to deal with such a situation, not to mention that 800 million people already suffer from hunger today? Insects are one of the

possible answers that have been circulating among food and nutrition experts around the world for some time.

According to the FAO, more than 2 billion people already use insects for food and there are over 1,900 edible species on the market.



Their consumption

Cultural biases

The major obstacle to overcome in the consumption of insects is cultural prejudice. In the Netherlands, a study was carried out on the information bias that characterizes the European consumer towards insects. The research has shown that taboo and disgust are two very important components, but the communicative factor is also of fundamental importance in considering insects as food.

Nutritional and environmental benefits

Insects could represent a valid choice both from a nutritional point of view and from an environmental impact. In fact, they are a highly nutritious food source because they provide high quality proteins comparable to those provided by meat and fish. Again according to the FAO, from an environmental point of view, insects have a high nutritional conversion efficiency, on average they can convert 2 kg of food into 1 kg of mass, whereas a cattle needs 8 kg of food to produce the increase of 1 kg of body weight.

Italian Cricket Farm



Italian Cricket Farm is the largest insect farm in Italy. They raise crickets (*Acheta domesticus*), mealworms (*Tenebrio molitor*) and caimans (*Zophobas morio*). They have the best cricket powder, a healthy and eco-sustainable protein product.

Why Italian Cricket Farm?

Because thinking local means making a food travel a short distance and therefore emitting less CO₂, because being close is synonymous with quality since insects don't have to undergo excessive stress deriving from long journeys.

Natural insects

For feeding the meal insects they use raw materials that would otherwise be discarded, but no less safe and of lower quality and always traced.

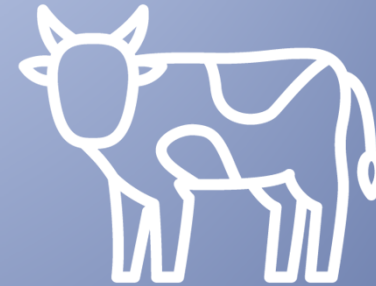
The whole supply chain is designed to be easily converted to organic, in fact, since 2020 they are contributing to the definition of biological insect.

Protein value

They are rich in protein. Their protein value is about 69%, almost double that of beef.



- 150 Liters of water needed to produce one kg of protein
- 80 Production efficiency, or edible percentage of the animal
- 1 Kg of feed needed to obtain a weight gain of 1 kg of the animal
- 2 Square meters of soil required to obtain 1 kg of protein



- 22000 Liters of water needed to produce one kg of protein
- 40 Production efficiency, or edible percentage of the animal
- 10 Kg of feed needed to obtain a weight gain of 1 kg of the animal
- 195 Square meters of soil required to obtain 1 kg of protein