## A glimpse of a modern (nsect farm



## How are insects farmed in Europe?

Insect farms rely on natural processes, taking advantage of the ability of insect larvae to upcycle underused materials into high-quality proteins, lipids and fertiliser. This summary factsheet will present a simplistic overview of some key features of modern insect farming, as presented in the <u>IPIFF Guide on Good Hygiene Practices (GGHP)</u>. For further reference, please refer to the updated version of the Guide on the IPIFF website.



The diet of the insects (a.k.a. insect 'substrate') is closely monitored and controlled - in compliance with the standards for animal feed. The substrate - sourced from registered operators - is prepared in order to match the dietary requirements of the farmed species and their lifecycle. Following the completion of the larval cycle, the leftovers are used as fertilising material on nearby agricultural land, ensuring a circular approach that values the importance of soil fertility.

see the GGHP - chapter 2.1. Substrates supply and insect producers sourcing activities



Not only a nutritious and balanced diet is important for farmed insects. In an insect farm, temperature, humidity and air parameters are closely monitored and adjusted - if needed. In addition, farms also ensure that a proper population density is maintained - in line with each species' characteristics. All these elements are essential to facilitate the proper development of the insect larvae throughout its larval stages, while also ensuring their welfare.

see the GGHP - chapter 3.3. Insect growth phase



Highly qualified and trained personnel, specialised in food safety, monitor insects throughout their life-cycle.

see the IPIFF Guide on Good Hygiene Practices (GGHP) - chapter 6.7. Personnel



Unlike their close relatives in the wild, insects are farmed in closed spaces. This ensures a high degree of safety for the populations grown indoors, guaranteeing that optimal living conditions are maintained. In addition, the set up of an insect farm prevents the insects from escaping and ensures that the farmed species have no interaction with wild species.

see the GGHP - chapter 3.3.3. Recommended practices

## A glimpse of a modern insect farm

I want to start my own farm. Which legislation shall I read first?





According to the European legislation, farmed insects are considered 'farmed animals'. Therefore, the majority of the standards applying to livestock farming applies to insects, too. In addition, their use in food and feed applications means that whole insects and their-derived ingredients have to comply with the 'General Food Law' and the related pieces of legislation.

see the GGHP - section 'Applicable EU Regulations and other reference texts'



The use of insects and their derived ingredients is approved on EU level. On national level, Competent Authorities are in charge of ensuring that the European legislation (transposed into national law) is properly implemented by animal farms, food and feed business operators. Thus, compliance with these standards is verified by inspectors.

For more information regarding EU legislation (e.g. 'novel food' or animal feed), please visit the <u>IPIFF website</u>



Depending on the market targeted (food or feed), insect-based products have to comply with numerous toxicological and microbiological requirements. These parameters are defined by the European legislation and have to be respected in order to guarantee the safety of the food and feed products placed on the European market. In the case of insect farms, in addition to the analyses carried out on the end-product, compliance with the above parameters is ensured by strictly monitoring the rearing process (e.g. the substrate used).

see the GGHP - chapter 7 - HACCP principles



More than 2000 insect species are consumed worldwide. Can all of them be farmed in the European Union? Presently, a total of seven species is primarily used in animal feed, while a dozen are allowed in food (in certain Member States). These species can be legally farmed in line with the EU legislation because they are not invasive and they are not pathogenic to humans and animals. Species to be authorised in the future shall comply with these standards.

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