



IPIFF'S CONTRIBUTION TO THE PUBLIC CONSULTATION OF THE EUROPEAN COMMISSION INITIATIVE ON FOOD WASTE REDUCTION TARGETS

IPIFF welcomes this initiative promoted by the European Commission in the context of the revision of the Waste Framework Directive (WFD). We strongly believe that the inclusion of EU-level targets for food waste reduction will strongly support the achievement of the objectives set out in the Farm to Fork Strategy.

Besides the Questionnaire, we enjoy the opportunity provided by this public consultation to showcase the contribution of insect farming to achieving the Food Waste Reduction Targets.

ABOUT IPIFF

The International Platform of Insects for Food and Feed (IPIFF) - the European insect sector umbrella association - is a non-profit organisation that represents the interests of actors active across the insect production value chain at the European level. Bringing together more than 80 members - most of which are European insect-producing companies - it aims at contributing to sustainable, circular food and agricultural system by promoting the use of insects and insect-derived products, mainly for food and animal feed.

THE INSECT FARMING: EU'S STRONGEST PARTNER TO HALVE FOOD WASTE BY 2030

INSECT FARMING REDUCES THE FOOD WASTE BURDEN

- Insects have the potential to become resource-efficiency champions - upcycling underused materials into sustainable feed ingredients that will reduce the necessity to increase the EU's imports of proteins.
- As insects are mostly farmed on agri-food co-/by-products or foodstuffs no longer intended for human consumption (i.e., former foodstuffs), such farming practices contribute to safely reintroducing nutrients in the agri-food chains, reducing the food waste burden (e.g., as such products may be downcycled, incinerated or landfilled).

INSECT FARMING CAN AVOID A THIRD OF THE GENERATED FOOD WASTE

- Up to 90 million tonnes of food is wasted every year in the EU, half of which is generated at the production and/or processing stage.
 - Up to a third of the food waste generated today could be suitable for insect farming - before it is classified as 'waste'.

INSECT FARMING UPCYCLES FOOD WASTE INTO PROTEIN-RICH FOOD PRODUCTS

- By reintroducing former foodstuff into insect production, the European insect sector generates safe products suitable for human consumption. With its highly productive vertical farming practices, insect farming is among the most efficient protein production systems, demanding less land use than most agricultural practices.
 - The high protein content of edible insects makes them an innovative alternative protein provider. Edible insects can complement low-protein diets thanks to their diverse amino acid composition. In addition, insects are more than an alternative to meat. They contain numerous vitamins, minerals, and prebiotic fibres - important for the metabolism and immunity of the human body.

INSECT FARMING CAN BIO-CONVERT FOOD WASTE INTO ANIMAL FEED

- Being highly versatile and efficient, insects can bio-transform many of these materials (before they become 'waste') into a wide range of higher-value products and ingredients - that can further be included in the feed chains:
 - For several decades Insect farming provides protein-feed for pets as well as for fur animals, and other non-food producing animals (e.g., reptiles, birds of prey, zoo, and circus animals)¹.
 - Since 2017, processed animal proteins derived from farmed insects (PAPs) have been authorised and are a leader in innovative protein feed materials developed for the aquaculture market.²
 - Also, since late 2021, PAPs are authorised in the European market to supply protein feed ingredients for poultry and swine animals - in line with their natural diets.³

INSECT FARMING CAN TRANSFORM FOOD WASTE INTO SOIL FERTILISER

- Insect farming like other farming practices, insects generate by-products that can be applied as fertilising products in agriculture. Since November 2021, insect frass plays a key role in providing local solutions to improving soil fertility. Its application is consistent with circular economy's principles, by reintroducing valuable materials into the food production chain - as an alternative to linear models that would end with its disposal - while offering sustainable solutions to European farmers and/or gardeners'.

¹ Article 18 of Regulation (EC) No 1069/2009 of 21 October 2009

² Commission Regulation (EU) 2017/893 of 1st July 2017

³ Commission Regulation (EU) 2021/1372 of 17 August 2021



INSECT FARMING BY REINTRODUCING FOOD WASTE IN ITS PRODUCTION CAN GENERATE OTHER VALUABLE OUTPUTS

- Insect products and by-products do not constitute valuable material for direct valorisation ‘within the food chain’ only. These may also be used as feed for technical purposes such as cosmetic industry, bio-based fuels, or to produce other bio-based materials such as bioplastics.

INSECT FARMING CONNECTS LOCAL AGRICULTURAL SUPPLY CHAINS

- Enhancing circularity throughout the agri-food chains is key to reducing losses - the sustainability of our food system will be enhanced if farmers are given the opportunity to use biomass residues and new feed products to feed their animals. In line with the waste hierarchy of insect farming, upcycling such streams will also prevent competition with products already used as animal feed.

INSECT FARMING CAN IMPROVE THE EU’S SELF-SUFFICIENCY

- Insect production can ultimately improve the EU’s self-sufficiency in terms of food, feed, and fertilising materials - ‘fewer imports would be needed and the expansion of agricultural land outside the EU would be minimised’, in line with the EU’s Green Deal aim to reduce the loss of biodiversity.

HOW CAN INSECT FARMING BECOME THE EU’S NO 1 PARTNER IN REDUCING FOOD WASTE?

IPIFF members estimate that up to 20 million tonnes of materials from food-producing industries (such as agri-food by-products or former foodstuffs containing meat and fish) could be upcycled in total, with other several million tonnes being suitable for technical applications.

What IPIFF proposes

Authorising the diversification of former foodstuffs

- The authorisation of using former foodstuff containing meat and fish as feed for farmed insects would effectively contribute to reducing the food waste currently generated in the EU.

Further exploring the added value of catering waste

- The valorisation of by-products from the bioconversion of catering waste outside the food chain (in biofuels, cosmetics, or other technical applications).