‘Insects and novel food’
Innovative Food - Unblocking innovation

A. Introduction to IPIFF and the European insect sector

B. Should we eat insects?

C. EU novel food legislation: opportunities and challenges for European insect producers

Christophe Derrien
Secretary General – IPIFF

European Economic & Social Committee
9th of July
A. Introduction to IPIFF and the European insect sector

The voice of insect producers

Consolidating dialogue with EU public authorities and advocating for appropriate legislative frameworks

Promotion and/or development of shared standards & best practices

Collaborative actions with regional insect associations and intergovernmental organisations

Support members in the effective implementation of the legislation on food & feed safety

52 members
INSECT INDUSTRY TODAY: SECTOR OVERVIEW AND MAIN ACTORS

THE EUROPEAN INSECT PRODUCTION SECTOR TODAY

Dozens of companies are established in Europe today.

European companies play a leading role in terms of innovation & technological advancement.

Sector predominantly composed of SMEs, serving both food &/or feed markets.

EU production represents today few thousands tones, whereas investments account above 500 Million Euros – 2 billion EUR are expected by 2025 (source: IPIFF questionnaire October 2018 updated in March 2019).

A few hundred jobs today – potential to increase up to a few thousands by 2025.
B. Should we eat insects?...
...have a balanced nutritional profile (proteins, essential fatty acids, vitamins and minerals).

Growing consumer demand for new dietary habit (e.g. Paleo, flexitarianism).

Food for specific categories (e.g. sports) or complementary food/functional food (e.g. snacks, pasta, cereal bars, powders).

Insects have a high content of minerals important for human nutrition.
Rich in trace elements such as copper, iron, magnesium, manganese, phosphorus, selenium and zinc.

Promote chemical reactions in the human body and may form part of many tissues. Required in small amounts for metabolic purposes.

Prebiotic fibres, such as chitin, provide nutrients for probiotic gut bacteria in humans.
Chitin-derived substances are commonly found in insect exoskeletons.

Fibres are necessary to have a healthy human gut.

Insects meet all human essential amino acid criteria. Although small, they are packed with proteins 50-80% dry matter basis, 7-14% fresh-weight protein.

Contains all essential amino acids and high in monounsaturated fatty acids and/or polyunsaturated fatty acids (MUFA, PUFA) at acceptable standards.
Omega-6 and Omega-3 fatty acids.

Fatty acids constitute the main component of lipids and are required as a source of energy for metabolism and structure.
The human body cannot produce specific fatty acids, so we need supplementary sources.

B12 (Combalim), B2 (Riboflavin), B1 (Thiamine) and other vitamins are present in insects.

Essential for normal growth and activity of the body, as well as for energy production, immunity and other functions.
Need for credible solutions to solve global challenges

Need for more ‘high grade’ proteins
- Direct replacement
- Alternative feed ingredients

‘88 Millions tonnes of food wasted in the EU each year’
As from 1st Jan 2018, all types/forms of insects intended for human consumption must be authorized prior to their marketing within the EU. Companies intending to commercialize such products must submit a Novel Food application to the European Commission. Once authorized, these applications become ‘generic’, unless 5-years data protection is granted by the European Commission.

- State of play on applications and notification dossiers rel. to insects
  - 20 applications;
  - 5 notifications as traditional food;
  - Several species covered (crickets, mealworms, grasshoppers, drone larvae)
  - No authorization yet (1st half of 2020?)
Harmonisation and simplification of EU authorisation procedures

• ‘IPIFF considers that the establishment of **harmonized rules for the marketing of insect products** is a ‘step in the right direction’

• ‘IPIFF welcomes the efforts made to simplify & harmonize the ‘procedural steps’ (...) notably materialized through the creation of an EU centralised authorisation system relying on the European Food Safety Authority (EFSA) (...) or through the introduction of **shortest deadlines** during the authorisation procedure’.

Shifting towards the establishment of a ‘generic’ authorisation system

**Principle of generic authorisation and exceptions**

Under Regulation (EU) 2015/2283, all **authorisations become ‘generic’** (as opposed to the applicant-specific authorisation system on which Regulation (EC) No 258/97 was based). This means that food business operators will be entitled to lawfully place any novel food product that has been included in the Union list of novel foods pursuant to Regulation (EU) 2015/2283, as long as the authorised conditions of use, labelling requirements, and specifications are complied with.

Translating this principle to the particular situation of insects means that insect producers will be entitled to place insect-based food products on the EU market without having to prepare and submit a new novel food application or notification (i.e. ‘an extension of a novel food authorisation’ as described in the above subsection) where the concerned products are made of originate from a **previously authorised insect species** and the concerned products are covered by the existing authorisation or notification. This principle would however only apply in case the **corresponding dossier does not benefit from regulatory data protection**.

Source: IPIFF position paper (29 November 2016)
EU Novel Food legislation: main challenges for European insect producers

‘Whole insects’ within the scope of Reg. 258/97 & implementation of the transitional measure

Scientific data in support of novel food applications

Implementing Regulation (EU) 2017/2469 - Article 5 - Scientific data requirements

1. The dossier submitted in support of an application for the authorisation of a novel food shall enable a comprehensive risk assessment of the novel food.

( ... )

3. The applicant shall provide a copy of the documentation on the procedure and strategy followed when gathering the data.

4. The applicant shall provide a description of the safety evaluation strategy and the corresponding toxicological testing strategy and shall justify the inclusion or exclusion of specific studies or information.

5. The applicant shall provide on request the raw data for the individual studies, published and unpublished, undertaken by the applicant, or on their behalf, to support their application. This information includes data used to generate the conclusions of the individual studies and results of examinations.

6. Where it cannot be excluded that a novel food intended for a particular group of the population would be also consumed by other groups of the population the safety data provided shall also cover those groups.

7. For each biological or toxicological study, the applicant shall clarify whether the test material conforms to the proposed or existing specification. Where the test material differs from that specification, the applicant shall demonstrate the relevance of those data to the novel food under consideration. Toxicological studies shall be conducted in facilities which comply with the requirements of Directive 2004/10/EC or, if they are carried out outside the territory of the Union, they shall follow the OECD Principles of Good Laboratory Practice. The applicant shall provide evidence of compliance with those requirements and shall justify any deviation from the standard protocols.
**REPORT ON ADDRESSING DATA REQUIREMENTS FOR NF APPLICATION COVERING INSECTS**

<table>
<thead>
<tr>
<th></th>
<th>Details on the main data required to support a NFA (e.g. need for sub chronic animal tox studies, allergenicity) and justifications for excluding certain papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Outlining the organization and presentation of the risk assessment data</td>
</tr>
</tbody>
</table>

**SCIENTIFIC LIBRARY (DATABASE)**

<table>
<thead>
<tr>
<th></th>
<th>Literature / public studies on the (safe) consumption of insects (e.g. nutritional aspects, tox studies, allergenicity, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Assessment of the quality of scientific papers &amp; summary</td>
</tr>
</tbody>
</table>
CONTACT US

IPIFF’s Secretariat,
Avenue Adolphe Lacomblé 59,
BTE 8 B-1030, Brussels,
Belgium.
+32 (0)2 743 29 97
info@ipiff.org

@IPIFF_org

IPIFF (International Platform of Insects for Food and Feed)