IPIFF contribution in response to the EU survey on possible amendments to CMC 10 in Annex II to the Fertilising Products Regulation (FPR)

General remarks

According to the European Commission (EC) - as highlighted it its recent Communication from 9 November 20221 - “the substitution of mineral fertilisers by organic fertilisers is part of the solution to reduce the EU’s dependence on gas (while) (...) it will help reduce the carbon footprint of fertilisers”.

In this context, the definition of ‘end-points in the manufacturing chain for certain animal by-products’ will allow for EU market access under the so called EU ‘Fertilising Products Regulation’ (later referred as ‘the FPR’), i.e. Regulation (EU) 2019/1009. Processed insect frass features amongst the products for which such an end-point would be defined - in accordance with the proposals included in the recently published draft delegated Regulation2 - thereby paving the way for its broader use as fertilising producer on the EU market3.

Thus, the aforementioned regulatory reforms are of strategic importance for the European insect producing sector. These would also play an important role in promoting circular alternatives, whilst being aligned with the objectives of achieving 25% of organic land by 20304, under the EU ‘Farm to Fork Strategy’5.

The use for processed frass as fertilising product under the FPR (CMC 10) will contribute to unleash the circularity potential of the insect sector.

In addition to the main outputs generated through insect production activities (i.e. whole insects, proteins or fats), insect frass has great potential to be upcycled as fertilising products (e.g. organic fertiliser, compost material or soil improver)6. Yet, many European insect producers are not today in a position to valorise these materials efficiently, due to the absence of ‘fully harmonised’ standards at EU level.

As EU umbrella organisation for the EU insect producing sector, IPIFF welcomes the EU initiative to amend CMC 10, in Annex II of the FPR, which would notably lead to authorise the use of processed insect frass as fertilising product across the European Union.

The inclusion of processed insect frass amongst the animal-by-products which can be upcycled as fertilising products at EU level will offer new and sustainable solutions for European farmers and/or gardeners. Additionally, the use of insect frass as organic fertilising product can contribute to reduce the necessity

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1 see full text of the Communication - COM (2022)590
2 See the draft Delegated Regulation through the following link.
3 See IPIFF contribution to the consultation through the following link.
4 Organic farming does not authorise the use of synthetic fertilisers
5 See full text - COM/2020/381 final
6Mainly used in nurseries, viticulture, by professional or amateur horticultors as well as by arable farmers, insect frass constitutes a valuable alternative to today’s fertilising products: In addition to its interesting NPK profile (i.e. nitrogen, phosphorus and potassium), insect frass contains certain beneficial bacteria that act as plant growth microorganisms.
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7 rue Joseph Stevens, 1000 Brussels (Belgium)

to apply additional inputs, such as mineral fertilisers or plant protection products: indeed, the excrements of insects contain large amounts of nutrients in forms that are easily assimilated by plants, but also with microorganisms inhibiting the growth of pathogens.7

Finally, the aforementioned proposed amendment is fully in line with the Circular Economy principles, notably in the context of reduced availability of mineral fertilisers.

The EU Legislator has defined robust standards to prevent the potential risks associated with the use of insect frass as fertilising product

Through the adoption of Regulation (EU) No 2021/1925, the EU Legislator created a ‘legal definition’ for ‘insect frass’ under the EU animal by-products legislation. The latter definition regulates the conditions under which insect producers may place such products on the EU market8: notably, it excludes live insects and whole dead insects, if present at more than 5 % in volume and 3 % in weight. These restrictions apply in addition to heat treatment standards (the product shall undergo a heat treatment of 70 ºC for 60 minutes) and binding monitoring protocols (e.g. to verify compliance with microbiological defined standards for Escherichia coli, Enterococcaceae and Salmonella) already imposed under Commission Regulation (EC) No 142/2011 for processed manure and guano from bats.9

According to the aforementioned EC draft delegated Regulation, these requirements constitute a precondition for establishing an ‘end-point’ in the manufacturing chain for processed insect frass, which are therefore no longer subject to veterinary control and may circulate freely in the internal market.

- adherence to the standards imposed under Commission Regulation (EC) No 142/2011 shall ensure the prevention of risks (e.g. sanitary and environmental risks) which could possibly be linked to the use of the derived products concerned as component materials in fertilising products.

A recent study developed by the organisation KU Leuven documented the impact of heat-treating insect frass from black soldier fly larvae, at 70 ºC for 60 min10. Furthermore, a few years ago, the French Agency for Food, Environmental and Occupational Health (ANSES) conducted a full safety assessment of insect frass derived from mealworm larvae11. Its conclusions confirmed the above findings.

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7 For further information in that regard, see the IPIFF brochure ‘building bridges between the insect producing chain, research and policy makers’ p 9 (May 2022).
8 Annex I (entry 61) to Regulation 142/2011 defines insect frass as ‘a mixture of excrements derived from farmed insects, the feeding substrate, parts of farmed insects, dead eggs and with a content of dead farmed insects of not more than 5 % in volume and not more than 3 % in weight’.
9 See Annex XI, Section II of Regulation 142:2011
10 “Impact of heat treatment on the microbiological quality of frass originating from Black Soldier Fly Larvae (Hermetia illucens)” - Noor Van Looveren, Dries Vandeweyer and Leen Van Campenhout, 24 December 2021; MDPI. Notably the authors concluded that ‘the proposed heat treatment on frass of Black Soldier fly larvae (i.e. heat treatment at 70 ºC for one hour) is likely appropriate to meet the legislative microbiological regulations for insect frass for the application as plant fertilizer or soil improver’.
11 This assessment intervened in the context of an application for marketing authorisation submitted by an insect producing company (i.e. the company Ynsect).
International Platform of Insects for Food & Feed (IPIFF)

7 rue Joseph Stevens, 1000 Brussels (Belgium)

Contact details:

Christophe Derrien (christophe.derrien@ipiff.org)

Secretary General

International Platform of Insects for Food and Feed (IPIFF)

t: +32 (0)2 893 20 21

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