



European Biostimulants Industry Council

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## POSITION PAPER

# Hydrolysed proteins, chitin, and hygienised insect frass should be granted end point status for use in EU Fertilising Products under Regulation (EU) 2019/1009

### Summary

This position paper argues that hydrolysed proteins, chitin, and hygienised insect frass, three common components of PFC 6 Plant Biostimulants and the blends containing them, deserve to be granted end-point status under the Animal By-Products Regulation for use in EU Fertilising Products. They meet the criteria for safety and “agronomic efficacy” (i.e. there is a relevant functional reason for incorporating them into plant biostimulants).

Regulation (EU) 2019/1009 (The Fertilising Products Regulation—FPR) states that EU Fertilising Products may contain component materials listed in the Component Material Categories specified in Annex II of that regulation.

The second paragraph of Annex II distinguishes between “component materials, and the input materials used to produce them.”

Component Material Category 10 “Derived products within the meaning of Regulation (EC) No 1069/2009” states “An EU fertilising product may contain derived products within the meaning of Regulation (EC) No 1069/2009 having reached the end point in the manufacturing chain as determined in accordance with that Regulation, and which are listed in the following table and as specified therein:”

To date, no such end points have been defined, and CMC 10 remains empty. In March 2021, EBIC and the European Consortium of the Organic-Based Fertilizer Industry (ECOFI) released a joint position paper “End points for animal by-products used in EU Fertilising Products should recognise the history of safe use of many common materials”, which can be found on the EBIC website.

### Background

Hydrolysed proteins and chitin are common components of plant biostimulants.

‘Hydrolysed proteins’ are defined by Reg (EC) 142/2011, Annex I, point 14 to mean polypeptides, peptides and amino acids, and mixtures thereof, obtained by the hydrolysis of animal by-products. However, materials that have already reached end-point status and are rehydrolysed fall outside this definition, leaving them in a regulatory no man’s land. The ABPR does not specify the molecular weight that must be achieved, except when the hydrolysates are destined for use in animal feed.

There is no need for the standards to be as strict for fertilising materials as they are for feed materials. Fraudulent use of fertiliser-grade materials in the feed chain is best controlled through the use of marker substances (such as GHT) and controls in the feed chain. End points should focus on

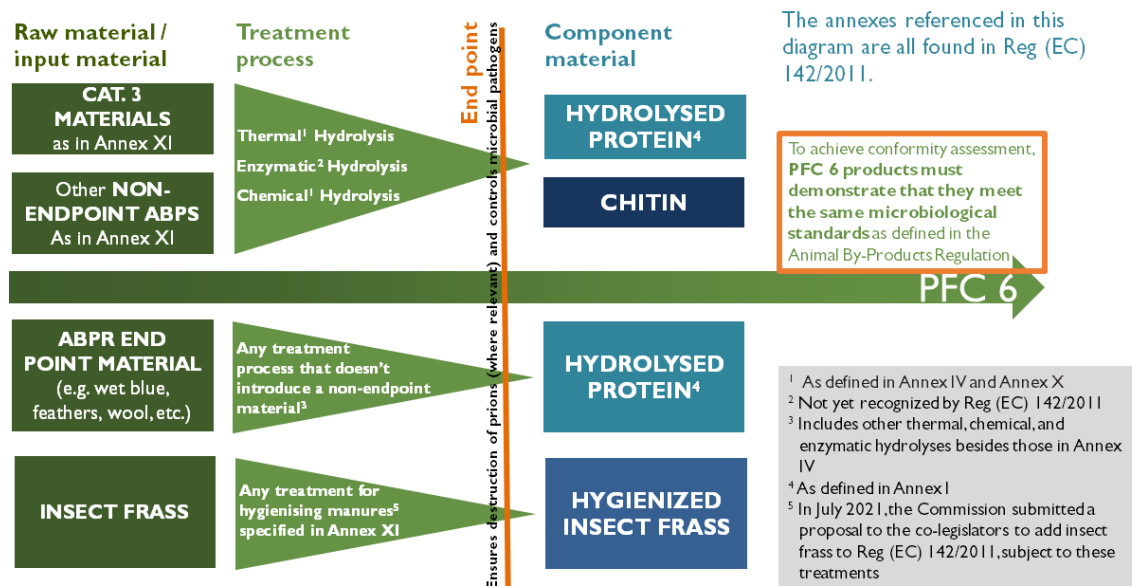
the absence of risk to human, animal or plant health, to safety or to the environment and “agronomic efficiency” as specified in Article 42 of Regulation (EU) 1009/2019. Therefore, classification as a hydrolysed protein should suffice for reaching end-point status for use in EU Fertilising Products. Traceability will be ensured as EU Fertilising Products will bear batch numbers.

**Hydrolysed proteins** used in fertilising products like plant biostimulants are produced through three pathways, with different starting points:

- Category 2 and 3 materials treated through processing method I (pressure sterilisation) as provided in Annex XI, chapter II, section I, point I(a) of Reg (EC) 142/2011. Category 3 materials are generally reserved for the feed sector but may be used for fertilising products. Even if it is not explicitly mentioned as a hydrolysis process, processing method I may be considered as such (in terms of temperature, pressure and duration) and it is comparable to those used for category 3 materials leading to hydrolysed proteins.
- **Category 3 or other non-end-point materials listed in Annex XI of Reg (EC) 142/2011 are treated through thermal or chemical hydrolysis** as defined in Annex IV and Annex X of Reg (EC) 142/2011 **or through enzymatic hydrolysis**, which has been recognised as providing equivalent results in terms of molecular weight. France, Hungary, and Spain all recognise enzymatic hydrolysis as an acceptable method for treatment of flavouring innards for petfood (see Reg (EC) 142/2011, Annex XIII, Chapter III). Following three discussions with Member States in the ABP Working Group, the European Commission noted that “In the absence of general processing standards for the hydrolysis of non-ruminant proteins of Category 3 material, any chemical, microbiological or enzymatic method may be used as long as the resulting product fits in the definition [of hydrolysed proteins] and the general requirements for the processing and placing on the market of feed materials laid down in Chapter I of Annex X to [Reg (EC) 142/2011 ] are met” (SANCO/G2/MK/lp (2013) 406523). Chapter I of Annex X specifies limits for Salmonella and Enterobacteriaceae. Bearing in mind that all plant biostimulants placed on the market under Regulation (EU) 2019/1009 must meet the same microbiological standards to achieve conformity assessment, all types of hydrolysis of non-ruminant proteins of Category 3 should be granted end-point status in the ABPR for the FPR’s CMC 10.
- **Materials that already have an end point defined under the Animal By-Products Regulation (such as “Wet Blue”, wool, feathers, etc.) undergo any treatment process that doesn’t introduce a non-endpoint material**, such as enzymatic and chemical hydrolysis and including thermal hydrolyses other than those in Annex IV of Regulation 142/2011. Since concerns about contamination from prions have been eliminated for tanned skins and hides and “Wet Blue” and the other materials listed are not from ruminants, hydrolysates of these materials should also qualify for end-point status in the ABPR for the FPR’s CMC 10.

**Chitin** can be obtained from input materials such as crustacean shells through thermal, chemical, or enzymatic hydrolysis.

**EBIC proposes end points for components of plant biostimulants under CMC 10 “Derived products within the meaning of Regulation (EC) No 1069/2009” of Regulation (EU) 2019/1009**



## Position

Hydrolysed proteins and chitin obtained through chemical, thermal, or enzymatic hydrolysis (or a combination of any of them) should be granted end-point status under Regulation (EC) No 1069/2009 for use in EU Fertilising Products and then inscribed in Component Material Category 10 (CMC 10) of the Fertilising Products Regulation. These processes and component materials have been demonstrated on countless occasions to be safe<sup>1</sup> <sup>2</sup>when used in fertilising products and contribute directly to the function of plant biostimulants as defined in Product Function Category 6 of the Fertilising Products Regulation (FPR).

## Call for action

We call on the European Commission to propose ABPR end points for chitin and hydrolysed proteins to be used in Fertilising Products. We then ask national authorities in the Standing Committee on Plants, Animals, Food, and Feed (SCoPAFF) to approve this proposal. Subsequently, we call on the Commission to include these materials in CMC 10 of the Fertilising Products Regulation and for national authorities in the Commission Expert Group on Fertilising Products to approve the respective delegated act.

Furthermore, we request that the assurances provided by the Commission in correspondence SANCO/G2/MK/lp (2013) 406523 be inscribed into Reg (EC) 142/2011 to provide a publicly

<sup>1</sup> For example, in 2018 (the latest official data available), 62,468 controls were conducted in Italy, with only nine cases requiring further investigation for possible contamination by pathogens, and all nine cases were finally determined to be negative for contamination.

<sup>2</sup> 2013, Corte et al., “Assessment of safety and efficiency of nitrogen organic fertilizers from animal-based protein hydrolysates—a laboratory multidisciplinary approach”, J Sci Food Agric. 2014 Jan 30;94(2):235-45. doi: 10.1002/jsfa.6239. Epub 2013 Jul 12.

available and easily citable confirmation of the acceptability of all types of hydrolysis as long as they respect microbiological standards.

For more information about this position paper, please contact Kristen Sukalac ([Kristen@prospero.ag](mailto:Kristen@prospero.ag))

## ABOUT EBIC



The European Biostimulant Industry Council (EBIC) promotes the contribution of plant biostimulants to make agriculture more sustainable and resilient and in doing so promotes the growth and development of the European Biostimulant Industry. Our mission is to ensure biostimulant technologies are valued as integral to sustainable agriculture, while securing an enabling regulatory framework for all of them.