

Definition of and discussion on Biostimulants

in the context of the revision of the EU fertiliser legislation

Definitions proposed by Arcadia:

Plant biostimulant

*“A **plant biostimulant** is any substance or microorganism, in the form in which it is supplied to the user, applied to plants, seeds or the root environment with the intention to stimulate natural processes of plants benefiting nutrient use efficiency and/or tolerance to abiotic stress, regardless of its nutrient content, or any combination of such substances and/or microorganisms intended for this use.”*

Comments IFOAM EU:

Proposal to change the definition of Plant biostimulants:

A **plant biostimulant** is any microorganism or substance **based on natural resources**, in the form in which it is supplied to the user, applied to plants, seeds or the **root environment soil and any other substrate** with the intention to stimulate natural processes of plants to benefit their nutrient use efficiency and/or their tolerance to **abiotic** stress, regardless of its nutrients content, or any combination of such substances and/or microorganisms intended for this use.

Justification: "Root environment" is a vague definition, whereas "soil and any other substrate" clearly addresses the substrate the plant is growing in. The limitation to "abiotic" stress would cause some difficulties, as it is not always clear if the main source of stress for a plant lies in biotic or abiotic factors. If the definition would be limited to abiotic stress, many substances used today would disappear from the market.

Concerns as regards the current approach

Organic Farming due to its particular character as a system approach uses substances that have specific characteristics. Below we list some of these characteristics and potential challenges resulting from them under a new regulation.

→ **Many “organic” substances are not one chemical substance but “not well defined substances” as plant extracts or microorganisms.**

As we understand, the new EU fertiliser legislation aims to cover products historically used for decades in organic farming as seaweed extract. However, the whole process for registration presented and also the definition is adapted too much to synthetic substances.

The **definition of substance** in the Arcadia proposal: “substance means a chemical element and its compounds, as it occurs naturally or by manufacture, including any impurity inevitably resulting from the manufacturing process” is not adapted to the needs of organic farming. Therefore we propose to add the following definition: An extract which is defined by 1) the extraction method and 2) the raw material must also be considered a substance. For

microorganisms, there should be a specific category. There is need of special guidance for both categories.

→ **The “organic” substances in use have often a dual purpose – there is often no clear borderline between plant protection and fertilization**

- Solutions must be found for the **borderline to Plant protection product (PPP)** without excluding substances with multiple actions. For example seaweed extract: The component laminarin was purified, concentrated and registered as PPP. But full seaweed extract has no significant effect in plant protection; it should therefore not be excluded from the authorisation as plant biostimulant under the fertiliser legislation, although it contains by its nature laminarin.

→ **The “organic” substances have effects that can vary considerably in time and space and are not repeatable under all conditions and not always significant.**

- Historical or traditional use should be considered fully for efficacy data. It is difficult to find significance for effects about 10 % of improvement especially if this is variable and depends of many factors. Nevertheless, these effects are interesting for practice as the historical use demonstrates. Generally, option A of the registration options regarding efficacy is better for small producers.
However, for microorganisms, **a good quality control** should be included.

→ **The “organic” substances are derived from natural resources, For this reason, there are few possibilities for the protection of Intellectual Property (patents) and, thus, of a good return of an investment.**

Due to the low financial return, it is not possible to invest in high registration costs for most organic substances. If data requirements are high and the registration process – as actually designed – is adapted very much to synthetic substances, this will lead to very high costs and even higher imponderabilities for the registration of organic substances.

The low financial return is the main reason why most „organic” substances are produced by SME - due to limited attractiveness of these substances for investors. However, the public interest in these substances is high, therefore an adapted, feasible registration should be made available. To avoid that substances for historical uses vanish from the market, safe historical use of substances traditionally used in organic farming shall be considered in the registration process.

Beyond the registration procedures, the following measures should be taken to facilitate the registration of traditional used substances:

- support for research assessing the use and characteristics of substances traditionally used in organic farming e.g. under a Horizon 2020 research and innovation action
- Public helpdesk for SMEs to facilitate the registration of these substances
- To avoid biased assessments and treatment of historical-use substances through fertiliser associations dominated by competitors who want to sell new products, all means of support, generation of data and the helpdesk should be under the responsibility of the national competent authority and must not be privatised

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