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Rastlinski biostimulanti - Navedbe - 1. del: Splošna načela

Plant biostimulants - Claims - Part 1: General principles

Pflanzen-Biostimulanzien - Auslobungen - Teil 1: Allgemeine Grundsätze

Biostimulants des végétaux - Allégations - Partie 1 : Principes généraux

Ta slovenski standard je istoveten z: EN 17700-1:2024

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EUROPEAN STANDARD

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English Version

Plant biostimulants - Claims - Part 1: General principles

Biostimulants des végétaux - Allégations - Partie 1 :
Principes généraux

Pflanzen-Biostimulanzien - Auslobungen - Teil 1:
Allgemeine Grundsätze

This European Standard was approved by CEN on 26 August 2024.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 17700-1:2024) has been prepared by Technical Committee CEN/TC 455 “Plant biostimulants”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2025, and conflicting national standards shall be withdrawn at the latest by May 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 17700-1:2022.

EN 17700-1:2024 includes the following significant technical changes with respect to CEN/TS 17700-1:2022:

— new or updated terms below:

- field trial,
- general principles,
- replicates,
- controlled conditions trial,
- trial series,
- strip trial;

— update of Clause 4 “Trials conditions to demonstrate claim(s)”; <https://standards.iteh.ai/standards.iteh.ai/SIST EN 17700-1:2025/57634db2e99c/sist-en-17700-1-2025>

- new sentence to introduce Table 1;
- update of Table 1;
- new sentence to introduce Tables 2, 3 and 4;
- update of subclause 5.4.2;
- update of subclause 5.4.3.1;
- modification of subclause 5.4.8.3;
- update of subclause 8.4;
- deletion of Annex A.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

EN 17700-1:2024 (E)

The EN 17700 series, *Plant biostimulants — Claims*, consists of the following parts:

- *Part 1: General principles;*
- *Part 2: Nutrient use efficiency resulting from the use of a plant biostimulant;*
- *Part 3: Tolerance to abiotic stress resulting from the use of a plant biostimulant;*
- *Part 4: Determination of quality traits, resulting from the use of a plant biostimulant;*
- *Part 5: Determination of availability of confined nutrients in the soil or rhizosphere.*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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Introduction

The European Committee for Standardization (CEN) was requested by the European Commission (EC) to draft European Standards or European Standardization deliverables to support the implementation of Regulation (EU) 2019/1009 of 5 June 2019 [1] laying down rules on the making available on the market of EU fertilising products (“FPR” or “Fertilising Products Regulation”).

This standardization request, presented as SR M/564 and relevant amendments, also contributes to the Communication on “Innovating for Sustainable Growth: A Bio economy for Europe”. The interest in plant biostimulants has increased significantly in Europe as a valuable tool to use in agriculture. Standardization was identified as having an important role in order to promote the use of biostimulants. The work of CEN/TC 455 seeks to improve the reliability of the supply chain, thereby improving the confidence of farmers, industry, and consumers in biostimulants, and will promote and support commercialisation of the European biostimulant industry.

This document has been developed to provide guidance for a consistent approach to justify the claims associated with the use of plant biostimulants.

The definition of plant biostimulants in Regulation (EU) 2019/1009 [1] is claims-based. For this reason, demonstrating that a product is indeed a *bona fide* plant biostimulant depends on a demonstration of its function.

The placement of a plant biostimulant on the market does not guarantee effectiveness under all conditions, as many factors can influence the performance of a plant biostimulant in the field.

Plant biostimulants can be applied in multiple ways: to the soil, on plants, as seed treatment, etc.

This document is applicable to all application types of plant biostimulants.

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EN 17700-1:2024 (E)**1 Scope**

This document specifies the general principles for justifying the product claims for plant biostimulants. It is applicable to all claims and all types of application of plant biostimulants.

General principles define all general parameters, requirements and quality criteria to be applied in order to assess trials conducted to validate the claim(s) associated with the use of a plant biostimulant.

This document is aimed primarily at manufacturers, laboratories, researchers, technical centres and companies that intend to place plant biostimulants on the market, as well as notifying authorities, notified bodies, and market surveillance authorities.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 17700-5:2024, *Plant biostimulants — Claims — Part 5: Determination of availability of confined nutrients in the soil or rhizosphere*

EN 17724:2024, *Plant biostimulants — Terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17724:2024 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 plant biostimulant

product stimulating plant nutrition processes independently of the product's nutrient content with the sole aim of improving one or more of the following characteristics of the plant or the plant rhizosphere:

- nutrient use efficiency,
- tolerance to abiotic stress,
- quality traits,
- availability of confined nutrient in soil or rhizosphere

[SOURCE: Regulation (EU) 2019/1009]

3.2 claim

effect(s) of the product that could be asserted on the product label of a plant biostimulant after the conformity assessment procedure

[SOURCE: EN 17724:2024, 3.1.1.3]

3.3**general principle**

rule establishing the parameters, requirements and quality criteria applicable to all plant biostimulants for carrying out the tests necessary to justify the claim

[SOURCE: EN 17724:2024, 3.1.1.6]

3.4**crop**

cultivated plant(s) including all components of the plant (above ground parts and below ground parts), mushrooms, microalgae and macroalgae

[SOURCE: EN 17724:2024, 3.1.1.4]

3.5**plant nutrient**

chemical element used by the plant for growth and development, classified as a primary macronutrient, secondary macronutrient or micronutrient per the quantity required by the plant

Note 1 to entry:

Primary macronutrients – nitrogen (N), phosphorus (P), potassium (K),

secondary macronutrients – calcium (Ca), magnesium (Mg), sodium (Na), sulphur (S),

micronutrients – boron (B), cobalt (Co), copper (Cu), iron (Fe), manganese (Mn), molybdenum (Mo), zinc (Zn).

[SOURCE: EN 17724:2024, 3.1.1.11]

3.6**protected crop condition**

crop cultivation in greenhouses or plastic tunnels with or without specific control of climate conditions according to the farming practice

EXAMPLE Cucumber or tomato cultivation.

[SOURCE: EN 17724:2024, 3.1.1.10]

3.7**controlled conditions trial**

trial carried out in a specific place like greenhouses, climatic chamber, etc., where all or some of the environmental conditions can be controlled or can be measured (like soil, temperature, light, humidity, etc.)

[SOURCE: EN 17724:2024, 3.1.1.9, modified – “a glasshouse” changed into “greenhouses”, “some parts of the environmental parameters” changed to “some of the environmental conditions”]

EN 17700-1:2024 (E)**3.8****trial series**

grouping of a number of independent field trials, carried out with plants, which have the same objectives, experimental design, protocol and parameters to prove the consistency of a result

Note 1 to entry: Trials done in controlled conditions are excluded.

Note 2 to entry: It can be conducted in different locations and/or over a number of consecutive years, as long as it satisfies the quality criteria described in this document (same protocol, same crop, control, timing).

EXAMPLE Strip trials, replicated trials.

[SOURCE: EN 17724:2024, 3.1.1.12]

3.9**strip trial**

specific trial carried out using minimum two treatments, next to each other, in the same field, to compare a control with a plant biostimulant treatment without replicates

[SOURCE: EN 17724:2024, 3.1.1.13]

3.10**replicate**

identical and independent repetition of each treatment in the same trial and under the same agronomic management practices like plant variety choice and fertilizers and plant protection products application

[SOURCE: EN 17724:2024, 3.1.1.14]

3.11**field trial**

trial performed under open field conditions (outdoors) or protected crop conditions according to common farming practices for a specific crop

Note 1 to entry: Field trial refers to conditions, without full control of climate conditions, according to common farming practices like plastic tunnels for strawberries, etc.

[SOURCE: EN 17724:2024, 3.1.1.5]

4 Trials conditions to demonstrate claim(s)

Trials carried out according to farming practices (open field or protected crop conditions) are essential to demonstrate plant biostimulant claims.

For some claims, however, field conditions cannot always be easily met (e.g. salt stress, cold stress, root measurements, availability of confined nutrients in the soil, etc.). In this case, plant biostimulant claims can be demonstrated under controlled conditions. The petitioner shall explain why the demonstration of the claim cannot be conducted under field conditions.

Analytical methods and methods used to measure the effect of a product can also be taken from scientific literature as specified in EN 17700-2:2024 [2], EN 17700-3:2024 [3], EN 17700-4:2024 [4] and EN 17700-5:2024.