

TAIMEDE BIOSTIMULAATORID. NÕUETEKOHASUS. OSA
1: ÜLDPÕHIMÕTTED

Plant biostimulants - Claims - Part 1: General
principles

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 17700-1:2024 sisaldab Euroopa standardi EN 17700-1:2024 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 27.11.2024.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 17700-1:2024 consists of the English text of the European standard EN 17700-1:2024.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 27.11.2024.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
--	---

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 65.080

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele. Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis- ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis- ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation: Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN 17700-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2024

ICS 65.080

Supersedes CEN/TS 17700-1:2022

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

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

Contents	Page
European foreword	3
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Trials conditions to demonstrate claim(s)	8
5 General guidelines for trials of plant biostimulants	9
5.1 General.....	9
5.2 Crop groupings for the performance of plant biostimulant trials	9
5.3 Minimum number of trials to be provided	12
5.4 Trial design and statistical analysis.....	14
5.4.1 General.....	14
5.4.2 Control	15
5.4.3 Minimum plot size	15
5.4.4 Application rates.....	16
5.4.5 Minimum number of replicates	16
5.4.6 Minimum number of trials in a trial series	16
5.4.7 Controlled condition parameters	16
5.4.8 Statistical analysis	17
6 Indication of crops on the label	18
7 Quality criteria	18
7.1 General.....	18
7.2 General criteria for trial conduction.....	18
7.2.1 Identity of the organization in charge of trials	18
7.2.2 Identity of the trial sites	19
7.2.3 Staff	19
7.2.4 Equipment	19
7.2.5 Facilities	19
7.3 Modes of operation.....	19
7.3.1 General.....	19
7.3.2 Verification of quality criteria.....	19
7.3.3 Verification at the planning stage	19
7.3.4 Verification during conduction of the trials.....	19
8 Information to be collected from each trial	20
8.1 Experimental conditions	20
8.1.1 Objective(s) of the trial and basic information on the trial site	20
8.1.2 Trial conditions	20
8.2 Application of the product.....	20
8.3 Recording measurements.....	21
8.4 Presentation of the results	21
Annex A (informative) Plant biostimulant claim completeness check form	22
Bibliography	26

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)”;
- 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.

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.

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.

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]