

English Version

Plant biostimulants - Claims - Part 3: Tolerance to abiotic stress resulting from the use of a plant biostimulant

Biostimulants des végétaux - Allégations - Partie 3 :
Tolérance au stress abiotique résultant de l'utilisation
d'un biostimulant des végétaux

Biostimulanzien für die pflanzliche Anwendung -
Angaben - Toleranz gegenüber abiotischem Stress
infolge der Verwendung eines Biostimulans für die
pflanzliche Anwendung

This Technical Specification (CEN/TS) was approved by CEN on 3 January 2022 for provisional application.

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European foreword

This document (CEN/TS 17700-3:2022) has been prepared by Technical Committee CEN/TC 455 “Plant Biostimulants”, the secretariat of which is held by AFNOR.

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 has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association.

The CEN/TS 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 nutrient 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.

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Introduction

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

The definition of plant biostimulants to be used in the regulation on fertilizing materials is claims-based. For this reason, demonstrating that a product is indeed a *bona fide* plant biostimulant depends on a demonstration of its effect.

The placing of a plant biostimulant on the market should not be considered to guarantee effectiveness under all conditions, as many factors may influence the performance of a plant biostimulant in the field.

Plant biostimulants used in agriculture can be applied in multiple ways: on soil, on plant, as seed treatment, etc. This document is applicable to all application types of plant biostimulants in agriculture.

1 Scope

This document provides guidance for justifying abiotic stress tolerance claim of plant biostimulants used in agriculture.

This document is aimed primarily at manufacturers, laboratories, companies which will put the products on the market, 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.

CEN/TS 17700-1:2022, *Plant biostimulants - Claims - Part 1: General principles*

CEN/TS 17724, *Plant biostimulants - Terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in CEN/TS 17700-1, CEN/TS 17724 and the following apply.

3.1

tolerance to abiotic stress

ability to endure abiotic stress

3.2

abiotic stress

negative impact of non-living factors on the plant in a specific crop environment

Note 1 to entry: Crop tolerance to abiotic stress is addressed to one or more (multiple or combined) of the following stress categories:

- 1) thermal stress,
- 2) light stress,
- 3) mechanical stress,
- 4) water stress,
- 5) chemical stress.

3.3

thermal stress

negative impact of temperature (supra-optimal and sub-optimal temperature) on the plant in a specific crop environment

EXAMPLE heat stress or cold stress such as chilling and freezing stress

3.4

light stress

negative impact of light intensity and/or spectrum on the plant in a specific crop environment

EXAMPLE high irradiance or low irradiance, UV radiation