

This document is a preview generated by EVS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| | |
|--|--|
| See Eesti standard EVS-EN 16086-2:2011 sisaldab Euroopa standardi EN 16086-2:2011 ingliskeelset teksti. | This Estonian standard EVS-EN 16086-2:2011 consists of the English text of the European standard EN 16086-2:2011. |
| Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. | This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kätesaadavaks 02.11.2011. | Date of Availability of the European standard is 02.11.2011. |
| Standard on kätesaadav Eesti Standardikeskusest. | The standard is available from the Estonian Centre for Standardisation. |

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 reproduutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; 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

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.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN 16086-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2011

ICS 65.080

English Version

Soil improvers and growing media - Determination of plant response - Part 2: Petri dish test using cress

Amendements du sol et supports de culture -
Détermination de la réponse des plantes - Partie 2: Essai
en boîte de Pétri avec du cresson

Bodenverbesserungsmittel und Kultursubstrate -
Bestimmung der Pflanzenverträglichkeit - Teil 2:
Petrischalentest mit Kresse

This European Standard was approved by CEN on 17 September 2011.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

| | Page |
|---|-----------|
| Foreword | 3 |
| 1 Scope | 4 |
| 2 Normative references | 4 |
| 3 Terms and definitions | 4 |
| 4 Principle | 5 |
| 5 Choice of methodology | 5 |
| 5.1 Contact method | 5 |
| 5.2 Extract method | 5 |
| 6 Material | 5 |
| 6.1 Cress seeds (<i>Lepidium sativum</i>)..... | 5 |
| 6.2 Water of class 3..... | 5 |
| 6.3 Sphagnum peat..... | 5 |
| 6.4 Fertilized and limed Sphagnum peat | 6 |
| 6.5 Petri dishes..... | 6 |
| 6.6 Perlite | 6 |
| 6.7 Testing facility..... | 6 |
| 6.8 Sieve with 10 mm mesh size..... | 6 |
| 6.9 Filter paper | 6 |
| 6.10 Ground limestone | 6 |
| 7 Contact method | 6 |
| 7.1 General preparation | 6 |
| 7.2 Sample storage and preparation | 6 |
| 7.3 Procedure | 7 |
| 7.4 Evaluation parameters | 8 |
| 8 Extract method | 10 |
| 8.1 Preparation of the sample extract | 10 |
| 8.2 Procedure | 10 |
| 8.3 Evaluation parameters | 11 |
| 9 Test report | 11 |
| Annex A (informative) Validation | 12 |
| Annex B (normative) Fist test, nutrient solution | 14 |
| B.1 Fist test | 14 |
| B.2 Composition of the nutrient solution | 14 |
| Bibliography | 16 |

Foreword

This document has been prepared by Technical Committee CEN/TC “Soil improvers and growing media”, the secretariat of which is held by ASI.

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 2012, and conflicting national standards shall be withdrawn at the latest by May 2012.

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

SAFETY PRECAUTIONS – Care should be taken when handling samples that may contain sharps or is of a dusty nature.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard describes a method for the routine determination of the effect of soil improvers and growing media or constituents thereof on the germination and early root development of cress.

2 Normative references

The following referenced documents are indispensable for the application 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 13037, *Soil improvers and growing media – Determination of pH*

EN 13038, *Soil improvers and growing media – Determination of electrical conductivity*

EN 13040, *Soil improvers and growing media – Sample preparation for chemical and physical tests, determination of dry matter content, moisture content and laboratory compacted bulk density*

EN ISO 3696, *Water for analytical laboratory use – Specification and test methods (ISO 3696:1987)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

plant response

variation in cress seed germination and/or growth when sown and grown in a growing medium, soil improver or constituent thereof

NOTE Factors causing negative plant growth cannot be identified nor sufficiently quantified by applying this method.

3.2

germination

for this method, the seed is said to have germinated as soon as the radicle has emerged from the seed

3.3

root length index

percentage difference of the root length of germinated cress seeds on the material under investigation compared to the root length of the control

3.4

Munoo-Liisa Vitality index

index calculated from the germination rate and the root length