



**SLOVENSKI STANDARD**  
**kSIST FprEN ISO 11269-1:2012**  
**01-junij-2012**

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**Kakovost tal - Vpliv onesnaževal na talno floro - 1. del: Metoda za merjenje zaviranja rasti korenin (ISO 11269-1:2012)**

Soil quality - Determination of the effects of pollutants on soil flora - Part 1: Method for the measurement of inhibition of root growth (ISO 11269-1:2012)

Bodenbeschaffenheit - Bestimmung der Wirkungen von Schadstoffen auf die Bodenflora - Teil 1: Verfahren zur Messung der Wurzelwachstumshemmung (ISO 11269-1:2012)

Qualité du sol - Détermination des effets des polluants sur la flore du sol - Partie 1: Méthode de mesurage de l'inhibition de la croissance des racines (ISO 11269-1:2012)

**Ta slovenski standard je istoveten z: FprEN ISO 11269-1**

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**ICS:**

13.080.30      Biološke lastnosti tal      Biological properties of soils

**kSIST FprEN ISO 11269-1:2012**      **en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**FINAL DRAFT**  
**FprEN ISO 11269-1**

May 2012

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ICS 13.080.30

English Version

**Soil quality - Determination of the effects of pollutants on soil  
flora - Part 1: Method for the measurement of inhibition of root  
growth (ISO 11269-1:2012)**

Qualité du sol - Détermination des effets des polluants sur  
la flore du sol - Partie 1: Méthode de mesurage de  
l'inhibition de la croissance des racines (ISO 11269-1:2012)

Bodenbeschaffenheit - Bestimmung der Wirkungen von  
Schadstoffen auf die Bodenflora - Teil 1: Verfahren zur  
Messung der Wurzelwachstumshemmung (ISO 11269-  
1:2012)

This draft European Standard is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 345.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## Foreword

The text of ISO 11269-1:2012 has been prepared by Technical Committee ISO/TC 190 “Soil quality” of the International Organization for Standardization (ISO) and has been taken over as FprEN ISO 11269-1:2012 by Technical Committee CEN/TC 345 “Characterization of soils” the secretariat of which is held by NEN.

This document is currently submitted to the Unique Acceptance Procedure.

### Endorsement notice

The text of ISO 11269-1:2012 has been approved by CEN as a FprEN ISO 11269-1:2012 without any modification.

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# INTERNATIONAL STANDARD

**ISO**  
**11269-1**

Second edition  
2012-03-01

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## Soil quality — Determination of the effects of pollutants on soil flora —

Part 1:

### Method for the measurement of inhibition of root growth

*Qualité du sol — Détermination des effets des polluants sur la flore du  
sol —  
Partie 1: Méthode de mesurage de l'inhibition de la croissance des racines*

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Reference number  
ISO 11269-1:2012(E)

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Published in Switzerland



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**ISO 11269-1:2012(E)****Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 11269-1 was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 4, *Biological methods*.

This second edition cancels and replaces the first edition (ISO 11269-1:1993), which has been technically revised.

ISO 11269 consists of the following parts, under the general title *Soil quality — Determination of the effects of pollutants on soil flora*:

- *Part 1: Method for the measurement of inhibition of root growth*
- *Part 2: Effects of contaminated soil on the emergence and early growth of higher plants*

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## Introduction

Chemical analysis of soil samples or waste materials to be disposed on soil, together with ecotoxicological testing, provides substantial evidence of the suitability of the soil for arable production, or gives information on the potential environmental risk resulting from the disposal of wastes such as sewage sludge on farmland. There is also a need to assess the quality of the soil after reclamation of industrial sites and colliery tips or when capping landfill sites. As the ability of the soil to grow crops is the main criterion, a rapid-growth test has been developed, based on seedling growth in controlled environmental conditions.

Two major prerequisites of a phytotoxicity test are that it provides consistently reliable results and that it can be used at any time of the year. It is therefore essential that seeds be grown in a controlled environment to ensure optimal growing conditions which can be maintained for any number of tests, producing reproducible results over a long period of time.

The test method described in this part of ISO 11269 can be used to compare soils, to monitor changes in their activity or to determine the effect of added chemicals or materials (compost, sludge, waste).

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