



SLOVENSKI STANDARD SIST EN ISO 22030:2011

01-november-2011

Kakovost tal - Biološke metode - Kronična strupenost za višje rastline (ISO 22030:2005)

Soil quality - Biological methods - Chronic toxicity in higher plants (ISO 22030:2005)

Bodenbeschaffenheit - Biologische Verfahren - Chronische Toxizität in höheren Pflanzen (ISO 22030:2005)

Qualité du sol - Méthodes biologiques - Toxicité chronique sur les plantes supérieures (ISO 22030:2005)

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ICS:

13.080.30 Biološke lastnosti tal Biological properties of soils

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EUROPEAN STANDARD

EN ISO 22030

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2011

ICS 13.080.30

English Version

Soil quality - Biological methods - Chronic toxicity in higher plants (ISO 22030:2005)

Qualité du sol - Méthodes biologiques - Toxicité chronique
sur les plantes supérieures (ISO 22030:2005)

Bodenbeschaffenheit - Biologische Verfahren - Chronische
Toxizität in höheren Pflanzen (ISO 22030:2005)

This European Standard was approved by CEN on 10 June 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.

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

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Foreword

The text of ISO 22030:2005 has been prepared by Technical Committee ISO/TC 190 "Soil quality" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 22030:2011 by Technical Committee CEN/TC 345 "Characterization of soils" the secretariat of which is held by NEN.

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 December 2011, and conflicting national standards shall be withdrawn at the latest by December 2011.

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.

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.

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INTERNATIONAL
STANDARD

ISO
22030

First edition
2005-02-01

**Soil quality — Biological methods —
Chronic toxicity in higher plants**

*Qualité du sol — Méthodes biologiques — Toxicité chronique sur les
plantes supérieures*

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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 22030 was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 4, *Biological methods*.

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Introduction

This International Standard describes a procedure for evaluating the quality of soils of different origin carrying unknown contaminations. The method, slightly modified, can also be used to measure the toxicity of known chemicals incorporated into soil.

The evaluation of the inhibition and chronic toxicity is based on emergence, vegetative growth and reproductive capacity of at least two species of higher plants.

This International Standard is based on:

- a) results of the research project “Development of a chronic bioassay using higher plants”, sponsored by the German Ministry for Education and Research (BMBF), Bonn [3], and
- b) discussions within the joint project “Ecotoxicological Test Batteries” forming part of the BMBF Joint Research Group “Processes for the Bioremediation of Soil” [10].

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