SLOVENSKI STANDARD
SIST EN ISO 23611-2:2012

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Kakovost tal - Vzorčenje nevretenčarjev v tleh - 2. del: Vzorčenje in ekstrakcija mikročlenonožcev: skakači (Collembola) in pršice (Acarina) (ISO 23611-2:2006)

Soil quality - Sampling of soil invertebrates - Part 2: Sampling and extraction of micro-arthropods (Collembola and Acarina) (ISO 23611-2:2006)

Bodenbeschaffenheit - Probenahme von Wirbellosen im Boden - Teil 2: Probenahme und Extraktion von Mikroarthropoden (Collembolen und Milben) (ISO 23611-2:2006)

Qualité du sol - Prélèvement des invertébrés du sol - Partie 2 : Prélèvement et extraction des micro-arthropodes (Collembola et Acarina) (ISO 23611-2:2006)

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Soil quality - Sampling of soil invertebrates - Part 2: Sampling and extraction of micro-arthropods (Collembola and Acarina) (ISO 23611-2:2006)

Qualité du sol - Prélèvement des invertébrés du sol - Partie 2 : Prélèvement et extraction des micro-arthropodes (Collembola et Acarina) (ISO 23611-2:2006)

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Foreword

The text of ISO 23611-2:2006 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 23611-2:2011 by Technical Committee CEN/TC 345 “Characterization of soils” the secretariat of which is held by NEN.

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INTERNATIONAL STANDARD

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Soil quality — Sampling of soil invertebrates —

Part 2: Sampling and extraction of micro-arthropods (Collembola and Acarina)

Qualité du sol — Prélèvement des invertébrés du sol —
Partie 2: Prélèvement et extraction des micro-arthropodes (Collembola et Acarina)

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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.

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ISO 23611-2 was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 4, *Biological methods*.

ISO 23611 consists of the following parts, under the general title *Soil quality — Sampling of soil invertebrates*:

— *Part 1: Hand-sorting and formalin extraction of earthworms*

— *Part 2: Sampling and extraction of micro-arthropods (Collembola and Acarina)*

— *Part 3: Sampling and soil extraction of enchytraeids*

— *Part 4: Sampling, extraction and identification of free-living stages of terrestrial nematodes*

Introduction

This part of ISO 23611 has been drawn up since there is a growing need for the standardization of sampling and extraction methods of soil micro-arthropods. These methods are needed for the following purposes:

— biological classification of soils including soil quality assessment (e.g. References [31], [32], [35], [41], [45], [46]);

— terrestrial bioindication and long-term monitoring (e.g. References [1], [7], [17], [40], [42]).

Data collected by standardized methods can be more accurately evaluated allowing more reliable comparisons between sites (e.g. polluted versus non-polluted sites, changes in land-use practices).

From the several micro-arthropod groups, Collembola and Acarina are the most studied in soil ecology. Their relevance for the soil system comes from their high abundance and diversity, and also from their role in key biological processes. Collembola and Oribatid mites act mainly as catalysts in organic matter decomposition [4], [20], whereas predacious mites may act as webmasters in soil food webs [9]. These characteristics, allied to a widespread taxonomic knowledge, allowed their use as study organisms in several research programmes dealing with the impacts of forest practices (e.g. References [12], [13], [14], [15], [18], [19], [21], [22], [23], [25], [26], [27], [28], [29], [30], [31], [33], [34], [37], [38], [39]) or crop management practices (e.g. [6], [11], [16], [24]). These features make them suitable organisms to be used as bio-indicators of changes in soil quality, especially due to land-use practices and pollution [43].