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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 47213-2026

**Digital soil mapping - Specification for the predictive mapping
of soil properties**

数字土壤制图 土壤属性预测性制图规范

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the Ministry of Agriculture and Rural Affairs of the People's Republic of China. This document is under the jurisdiction of the National Technical Committee on Soil Quality Standardization (SAC/TC404). This document was drafted by: Nanjing Institute of Soil Science, Chinese Academy of Sciences; Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences; Zhejiang Province. Universities, Jiangsu Provincial Institute of Quality and Standardization, Huazhong Agricultural University, Guangxi University, Tianjin University, Nanjing University. The main drafters of this document are: Zhang Ganlin, Song Xiaodong, Liu Feng, Shi Zhou, Wu Wenbin, Zhang Weili, Xu Aiguo, Pan Xianzhang, Hou Yueli, and Huang Rong. Duan Zengqiang, Zhao Yuguo, Guo Long, Sun Xiaolin, Yang Renmin, Yang Lin. Digital Soil Mapping Soil Property Predictive Mapping Standard

1 Scope

GB/T 47213-2026 is the Chinese national standard covering predicting a continuous soil property across a landscape - organic carbon, pH, texture - from point observations and environmental covariates, with the model, the validation and the uncertainty map that must accompany the result. First edition, in force since 1 September 2026, with the soil type mapping standard GB/T 47295-2026. It was issued on 27 February 2026 and has been in force since 1 September 2026, as a first edition. The document is under the responsibility of the Ministry of Agriculture and Rural Affairs. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the mapping platform, mapping process, target soil attribute items, mapping resolution, and soil attributes for predictive soil property mapping. Requirements for sample data, environmental variable data, establishing prediction models, accuracy evaluation, and generating digital soil property maps. This document is applicable to the compilation of distribution maps of soil properties within a given spatial range.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For

references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 17798 Geospatial Data Interchange Format

GB/T 20257.1 National Basic Scale Map Symbols Part 1.1.500, 1.1000, 1.2000
Topographic Map Symbols

GB/T 20257.2 National Basic Scale Map Symbols Part 2.1.5000/1.10000 Topographic Map
Symbols

GB/T 20257.3 National Basic Scale Map Symbols Part 3.1.25000, 1.50000, 1.100000
Topographic Map Symbols

GB/T 20257.4 National Basic Scale Map Symbols Part 4.1.250000, 1.500000, 1.1000000
Topography Diagram

GB/T 32738 Specification for Digitalization of Soil Maps at 1.50000 and 1.100000

GB/T 36501 Soil Mapping 1.25000 1.50000 1.100000 Standard for Color Use and Legend
of Soil Maps in China

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 soil property The physical, chemical, and biological properties of the solid, liquid, and gas phases in soil.

3.2 Digital Soil Mapping The process of generating digital soil maps in a computer environment.

3.3 predictive mapping A quantitative model was established using soil survey samples and their relationship with environmental variables to predict the mapping method for soil spatiotemporal variability.

Note. Raster data is typically used for mapping.

3.4 Soil-forming factors that influence the development and distribution of soil types.

Note. This includes climate, topography, parent material, organisms, time, human activities, etc.