

ICS 13.080

CCS B 10



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

GB/T 47295-2026

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

数字土壤制图 土壤类型预测性制图规范

Issued on: March 31, 2026

Implemented on: October 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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, Liu Feng, Song Xiaodong, 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. Predictive Mapping Specifications for Soil Types

1 Scope

GB/T 47295-2026 is the Chinese national standard covering mapping soils by prediction rather than by survey - the environmental covariates from terrain, climate and remote sensing, the model fitted to the observations that do exist, and the accuracy assessment and uncertainty that must accompany a map produced this way. First edition, in force since 1 October 2026. It was issued on 31 March 2026 and takes effect on 1 October 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, soil classification system, mapping classification levels, and soil types for predictive soil type mapping. Requirements for sample data, environmental variable data, establishing prediction models, accuracy evaluation, and generating digital soil type maps. This document is applicable to creating a distribution map of soil types 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 17296 Soil Classification and Codes in China

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

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 soil type Soil types are classified into an ordered hierarchical system based on soil-forming factors, soil-forming processes, and soil properties.

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.