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

GB/T 27402-2026

Replacing GB/T 27402-2008

**Criterion on the quality control of laboratories - Plant
quarantine**

实验室质量控制规范 植物检疫

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Foreword

This document conforms to GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting is scheduled. This document replaces GB/T 27402-2008 "Laboratory Quality Control Standards for Plant Quarantine". Compared with GB/T 27402-2008, Apart from structural adjustments and editorial changes, the main technical changes are as follows:

a) Added "Identification and Traceability", "Reference Object", "Standard Sample", "Sample", "Standard Method", "Method Validation", "Method Confirmation", and "Review". The terminology and definitions (see 3.2, 3.3, 3.4, 3.6, 3.7, 3.8, 3.9, 3.12) have been revised, and "plant quarantine laboratory" and "isolation trial planting" have been changed. Terms and definitions (see 3.1, 3.11, 2.1,

2.8 in the 2008 edition).

b) Added "General Requirements" (see Chapter 4);

c) The "Organization" element has been modified to clarify the scope of the laboratory's management system covering laboratory activities, as well as the management level, Requirements for the allocation of quality manager, technical manager, biosafety manager, and biosafety supervisor (see 5.2, 5.3, 5.7, 5.8). 5.9 (

3.1 in the 2008 edition).

d) The content of the "Personnel" element has been revised to clarify the personnel competency requirements (see 6.2,

4.2 of the 2008 version).

e) The content of the "Facilities and Environmental Conditions" element has been revised, and the management requirements for facilities and environmental conditions have been refined (see 6.3.2, 6.3.4). (

4.3 of the 2008 edition).

f) The content of the "Equipment" element has been revised to clarify the requirements for

equipment calibration (see 6.4.6, 6.4.7, 6.4.8, 2008 edition). (4.4.2)

g) The content of the "Specimen" element has been revised to clarify the requirements for specimens used as reference objects (see 6.5.3,

4.5 in the 2008 version).

1 Scope

GB/T 27402-2026 is the Chinese national standard covering quality control in a plant quarantine laboratory. A wrong identification here either lets a pest into the country or stops a legitimate shipment at the border, and both are expensive. It fixes the requirements on the facilities and environment, the equipment and its calibration, the reagents and reference materials, the competence and training of the analysts, the method validation and the quality control that runs alongside routine work. It replaces GB/T 27402-2008, one of the four GB/T 2740x laboratory quality standards revised together in this batch. It was issued on 28 January 2026 and has been in force since 1 March 2026, replacing GB/T 27402-2008. The document is under the responsibility of the Standardization Administration of China. 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 requirements for quality control in plant quarantine laboratories. This document applies to the quality management and competency assessment of plant quarantine laboratories, and also to other organizations engaged in plant quarantine activities. laboratory.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below. 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 20478 Plant Quarantine Terminology

GB/T 27025 General requirements for the competence of testing and calibration laboratories

3 Terms and Definitions

The terms and definitions defined in GB/T 20478 and GB/T 27025 apply to this document.

3.1 plant quarantine laboratory A laboratory engaged in the detection, identification, assessment and treatment of harmful organisms in plants or plant products.

Note. Its activities generally include pest identification, genetically modified organism testing, quality inspection, species identification, harmless treatment and other related activities.

3.2 Identification and traceability The test results were obtained using morphological, molecular biological, and immunological techniques, with a reference sample as the primary basis for judgment. The process of tracing the source of test results.

3.3 Reference object Reference objects used for comparison and judgment of results during the testing and identification process.

Note. Includes definitions, units of measurement, standards, standard samples, bacterial (viral) strains, specimens, images, sequences, etc.

3.4 Standard sample reference material One or more specified properties of a material or substance that are sufficiently uniform and stable have been determined to be suitable for the intended use in the measurement process. [Source: GB/T 15000.2-2019, 2.1.1]

3.5 Specimen Any part or all of an organism used for scientific research or comparative identification.

3.6 sample One or more parts are taken from a whole and used to provide relevant information about the whole, usually serving as the basis for judging the whole.