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

GB/T 15790-2026

Replacing GB/T 15790-2009

Specification for investigation and forecast of rice blast

稻瘟病测报调查规范

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Foreword

This document was issued on 31 March 2026 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 October 2026.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

It is classified under ICS 65.020.01, Chinese classification B15.

It replaces GB/T 15790-2009, which is superseded.

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.

This document replaces GB/T 15790-2009 "Specification for Rice Blast Monitoring and Forecasting". Compared with GB/T 15790-2009, the main differences are in the structural adjustments.

Aside from editorial changes, the main technical changes are as follows.

a) The terms and definitions for "seedling blast," "leaf blast," "panicle blast," "chronic lesion," "acute lesion," and "incidence rate" have been removed, and "rice blast" has been added.

Terms and definitions for "disease" and "disease index" (see 3.1, 3.2, 2.1-2.6 of the.2009 edition);

b) Added severity grading indicators for leaf blast and panicle blast (see Chapter 4);

c) A method for investigating seed bacterial contamination rates has been added (see Chapter 6);

d) The observation of aerial spore dynamics has been removed (see Chapter 6 of the.2009 edition);

e) The field survey method was changed, merging "seedling leaf blast survey," "field leaf blast survey," and "ear blast survey" into "systematic survey" and "field survey."

The investigation was conducted, and the relevant content was simplified (see Chapters 7 and 8, and Chapters 3-5 of the.2009 edition).

f) The methodology for investigating varietal resistance has been changed (see Chapter 9, Chapter 7 of the.2009 edition);

g) The formulas for calculating incidence and loss rates have been removed (see Chapter 8 of the.2009 edition);

h) Added forecasting and prediction methods (see Chapter 10);

i) The data collection, aggregation, and reporting methods have been changed, replacing "collection, aggregation, and archiving of monitoring and forecasting data" with "data collection, aggregation, and reporting".

The document adds a section on "sending" and specifies the methods and requirements for data collection, summarization, and reporting (see Chapter 11, Chapter 10 of the.2009 edition).

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 and is under the jurisdiction of the Ministry of Agriculture and Rural Affairs of the People's Republic of China.

This document was drafted by. National Agricultural Technology Extension Service Center, China Agricultural University, Nanjing Agricultural University, and Liaoning Provincial Rice Research Institute.

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The release history of this document and the document it replaces is as follows.

---First published in 1995 as GB/T 15790-1995, and revised for the first time in 2009;

---This is the second revision.

Rice blast disease monitoring and forecasting standards

1 Scope

GB/T 15790-2026 is the Chinese national standard that tells plant protection stations how to monitor rice blast and how to forecast it. Rice blast is the most damaging fungal disease of rice, and the value of a forecast depends entirely on everyone measuring severity the same way, which is what this document fixes. It grades the severity of leaf blast and of panicle blast on an individual plant into six levels each, by lesion size, lesion number and the share of leaf area affected for the first, and by incidence and loss rate per panicle for the second. Overall field severity is then graded into five levels from the disease index and the proportion of plants at each level. Clause 6 adds a seed contamination test that was not in the previous edition: seeds are soaked three hours, held three days in a 28 C incubator and read directly under the microscope. The survey work is split into a systematic survey, run every seven days from the seedling stage to the beginning of heading on untreated representative fields, and a field survey; a separate clause covers varietal resistance. The last clauses set out the forecasting methods and the way data are collected, aggregated and reported upward. It replaces GB/T 15790-2009, and is under the jurisdiction of the Ministry of Agriculture and Rural Affairs.

This document specifies the grading indicators for the severity of rice blast, forecasting and reporting, and describes the corresponding investigation methods.

This document applies to rice blast disease monitoring and surveys.

4 Disease Severity Grading Indicators

4.1 Severity Grading Indicators for Leaf Blast

The severity of leaf blast disease in individual rice plants is classified into six levels according to the size, number, and area ratio of lesions, as shown in Table 1.

4.2 Grading Indicators for the Severity of Panicle Blast

The severity of rice panicle blast disease in individual plants is classified into six levels according to the incidence and loss rate of each panicle, as shown in Table 2.

5 Occurrence severity grading indicators

The overall severity of rice blast was determined by using the disease index and the proportion of each level of disease occurrence in paddy fields as indicators.

According to Table 3, the classification is divided into 5 levels.

6 Methods for investigating seed bacterial contamination rate

6.1 Survey period

Before or after rice sowing, test the bacterial contamination rate of the main rice varieties.

6.2 Survey Methodology

Soak seeds in clean water for 3 hours, then place them in sterilized and humidified petri dishes. After 3 days in a 28°C incubator, examine the seeds directly under a microscope.

The presence of pathogens and their morphological characteristics are described in A.4. The investigation results are recorded in Table B.1 of Appendix B.

7 System Survey

7.1 Leaf Blast

7.1.1 Survey period

From the seedling stage to the beginning of heading, surveys were conducted every 7 days.

7.1.2 Survey Location

Based on rice varieties and rice cultivation types, select representative early-sown, mid-sown, and late-sown fields with favorable disease-causing conditions and early disease onset. For each type...

At least one field should be inspected for each type of rice. No fungicides should be used during the entire growth period of the rice.

7.1.3 Survey Methodology

A five-point diagonal sampling method was used, with 20 plants at each point, for a total of 100 plants per field. The number of diseased plants, severity, and acute type were investigated on a plant-by-plant basis.

Number of diseased plants and leaf age. The survey results are recorded in Tables B.2, B.3, and Appendix D, Table D.1.

7.2 Rice blast

7.2.1 Survey Time

From the time the wound begins to the early stage of wax maturation, an investigation is conducted every 7 days.