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

GB/T 17980.1-2026

Replacing GB/T 17980.1-2000

**Pesticides - Guidelines for field efficacy trials - Part 1:
Insecticides against lepidopteran borer pests on rice**

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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. This document is Part 1 of GB/T 17980, "Guidelines for Field Efficacy Testing of Pesticides". GB/T 17980 has published the following... part.

- 1. Insecticide control of lepidopteran borers in rice;
- 2. Insecticide Control of Rice Leaf Roller;
- 3. Pesticide Control of Rice Leafhoppers;

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document replaces GB/T 17980.1-2000 "Guidelines for Field Efficacy Testing of Pesticides (I) - Control of Lepidoptera Borers in Rice". Compared with GB/T 17980.1-2000, the main technical changes in "Pests" are as follows, except for structural adjustments and editorial modifications.

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 2000 edition);
- b) The requirements for test subjects and crops have been changed (see 4.1,

2.1 of the.2000 edition);

c) The environmental conditions requirements have been changed (see 4.2,

2.2 of the.2000 edition);

d) Added provisions for test treatment (see 5.1);

e) The requirements for test and control reagents have been changed (see 5.2,

3.1 of the.2000 edition);

1 Scope

GB/T 17980.1-2026 is the Chinese national standard covering the trial protocol for an insecticide against rice stem borers - pests that spend their damaging stage inside the stem, so the assessment is of dead hearts and white heads rather than of the insects themselves. The GB/T 17980 series is what a pesticide registration in China rests on: it fixes the plot design and replication, the application rate and timing, the assessment of the pest and of the crop, and the analysis of the result, so that trials run by different institutes can be compared. It replaces GB/T 17980.1-2000 and has been in force since 1 September 2026, one of six parts of the series revised together. It was issued on 27 February 2026 and has been in force since 1 September 2026, replacing GB/T 17980.1-2000. 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.

27 Implemented on 2026-09-

01 State Administration for Market Regulation The State Administration for Standardization issued a statement.

4 Test conditions

4.1 Test subjects and crops The subjects of the experiment were rice stem borer, rice stem borer, Taiwan rice stem borer, and rice bark borer. The experimental crop is rice, and it is advisable to select a locally cultivated variety. Record the variety name.

4.2 Environmental Conditions The experimental site should be a representative paddy field that has suffered severe damage over the years. All experimental plots should include specific crop varieties and cultivation conditions (such as soil type). The type, fertilizer, tillage, plant spacing, and water depth should be uniform and consistent, and conform to local scientific agricultural practices.

5 Experimental Design and Arrangement

5.1 Test Treatment Test reagents, control reagents, and blank controls should be included.

5.2 Reagents

5.2.1 Test reagents The test reagent should be applied at least three times; in special cases, the dosage should be set according to experimental requirements. Specify the Chinese/English common name or code of the reagent. Dosage form, active ingredient content, manufacturer, production date or batch number, expiration date, etc.

5.2.2 Control reagent The control agent should be a registered, locally used product with good efficacy and safety in actual use. The type and function of the control agent should be clearly defined. The method should be the same as or similar to that of the test drug, and the registered dosage should be used. For compound formulations, a single dose of each active ingredient should also be provided as a control drug. Special cases may be determined depending on the purpose of the experiment. Record the Chinese/English generic name, dosage form, active ingredient content, manufacturer, registration number, production date or batch number, and application rate of the control drug. Dosage, etc.

5.3 Community Arrangement

5.3.1 Layout of the community The experimental, control, and blank control plots were arranged in a randomized block design, with protection rows or isolation zones between plots. Records were kept. Plot arrangement diagram. For experiments involving the rice stem borer, all plots should preferably be located at the edge of the field. Special cases should be explained.

5.3.2 Area of the community and duplication Apartment size. 30m²~50m². Number of repetitions. at least 4 repetitions.

6 Applying pesticides

6.1 Application Method Follow the test requirements and label instructions. Application methods should be adapted to local scientific agricultural practices. Record the application methods and procedures. process.

6.2 Application equipment Select commonly used equipment, or select equipment according to the test requirements. Record the type of equipment used and the operating conditions (e.g., working pressure, nozzle type). Information such as nozzle diameter, etc.

6.3 Application time and frequency Conduct the test according to the requirements and label instructions. Application should be performed during the peak hatching period of insect eggs and into the 1st to 2nd instar larval stage. Record the number of applications and the amount of pesticide used. The date of application and the crop growth period.

6.4 Dosage Administer the medication according to the test requirements and the dosage

specified on the label. Record the prepared dosage and the amount of active ingredient used. The prepared dosage is usually expressed in mL/667m² (milliliters). The dosage is expressed in liters per 667 square meters (g/667m²) or g/667m² (grams per 667 square meters), while the dosage of the active ingredient is expressed in g/hm² (grams per hectare). Used for When spraying pesticides, record the amount of pesticide solution used per hectare, expressed in L/hm² (liters per hectare). Application should ensure accurate dosage and even distribution. Uniformity is required. Dosage deviation should not exceed $\pm 10\%$. If it exceeds $\pm 10\%$, it should be recorded and its impact assessed.

6.5 Chemical requirements for controlling other diseases, pests, and weeds If other pesticides are used to control pests, diseases, and weeds other than the test subjects during the experiment, those that have no effect on the test pesticides or test subjects should be selected. The reagents were used separately from the test and control reagents, and all test plots were homogenized to minimize interference from these reagents. To a lesser extent. Record accurate information about the application of this type of medication (such as the generic name of the medication, dosage form, content of the active ingredient, dosage, method of application, and administration). (Using time, target of prevention, etc.).

7.1 Drug Efficacy Survey

7.1.1 Survey Methodology Parallel skip sampling should be used in each plot, with at least 10 points surveyed. Each point should survey 5 rice clumps (transplanted fields) or

0.25 m² (direct seeding) per point. The total number of plants (ears) and the number of damaged plants (withered hearts, withered sheaths, insect-damaged plants or white ears) were statistically investigated, and the number of live insects was also counted.

7.1.2 Survey Time and Frequency A survey is conducted once when the symptoms of damage are obvious in the blank control area or after the current generation of damage has been identified.

7.2 Direct impacts on crops Observe whether the pesticide causes phytotoxicity to the crop. If phytotoxicity occurs, accurately describe the symptoms (such as stunting, chlorosis, deformity, etc.) and record them. The type and severity of pesticide damage should be recorded. In addition, the beneficial effects of the pesticide on the crop should also be documented. Record pesticide damage in the following ways.

a) If the damage from pesticides can be measured or calculated, express it in absolute values, such as plant height.

b) In other cases, the severity and frequency of phytotoxicity can be estimated using the following two methods. 1) Record the pesticide damage level for each plot according to the pesticide damage grading method in Table 1, using -, , , , , ; 2) Compare the drug-treated area with the blank control area to evaluate the percentage of phytotoxicity.