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

GB/T 17980.4-2026

Replacing GB/T 17980.4-2000

**Pesticides - Guidelines for field efficacy trials - Part 4:
Insecticides against planthoppers 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 4 of GB/T 17980, "Guidelines for Field Efficacy Tests of Pesticides". GB/T 17980 has already 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;
- 4. Insecticide Control of Rice Planthoppers; ...

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document replaces GB/T 17980.4-2000 "Guidelines for Field Efficacy Tests of Pesticides (I) Insecticides for the Control of Rice Planthoppers", and is consistent with... Compared with GB/T 17980.4-2000, apart from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 2000 edition);

- b) The descriptions and requirements for the test subjects and crops have been revised (see 4.1, 2.1 of the 2000 edition);
- c) The description and requirements of environmental conditions have been revised (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,

1 Scope

GB/T 17980.4-2026 is the Chinese national standard covering the trial protocol for planthopper control - where the insects sit at the base of the crop and the count has to be made by beating or by suction rather than by inspection. 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 17980.4-2000 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 17980.4-2000. 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.

This document describes the method for conducting field plot efficacy tests of insecticides for controlling rice planthoppers. The verification shall be carried out in accordance with the reference.

4 Test conditions

4.1 Test subjects and crops The experimental subjects were brown planthoppers, white-backed planthoppers, and gray planthoppers. The population percentage of each planthopper species was recorded at the beginning of the experiment. 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 plot of land with moderate to severe planthopper infestation and a relatively even distribution. The experimental area should not be located in fields. Along the edges, crop varieties and cultivation conditions (soil type, fertilizer, tillage, plant spacing, water depth) in all plots should be uniform and consistent, and conform to local scientific standards. 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 commonly 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 treatments were performed using a randomized block design, with protection rows or isolation zones between the plots. Record the layout of the residential areas. 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 type and nozzle diameter, etc.

6.3 Application time and frequency Conduct the experiment according to the test

requirements and label instructions. It is advisable to apply the pesticide during the peak occurrence of young planthopper nymphs. Record the number of applications, the date of each application, and... 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). Ensure accurate dosage and even distribution during application. 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 was used in each plot, surveying 10-20 points, with 2 clumps of rice at each point. White trays approximately 30cm x 40cm in size and moistened trays were recommended. On the inner wall, insert the white plate diagonally to the base of the rice clump, quickly tap the middle and lower part of the rice clump three times, and count the number of live insects in the plate.

7.1.2 Survey Time and Frequency Investigate the initial insect population before treatment. After treatment, investigate the number of surviving insects at 1-3 days, 7 days, and 14 days. For pesticides with slow action or long residual effect, [further details may be needed]. Extend the investigation period or increase the number of investigations.

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 counted or measured, express it in absolute values, such as plant height or plant weight.