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

GB/T 17980.8-2026

Replacing GB/T 17980.8-2000

**Pesticides - Guidelines for field efficacy trials - Part 8:
Insecticides against apple leaf roller**

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Table of Contents

- 1 Scope
- 4 Test conditions
- 5 Experimental Design and Arrangement
- 5.2 Reagents
- 5.3 Community Arrangement
- 6 Applying pesticides
- 7 Survey
- 7.1 Drug Efficacy Survey
- 7.3 Impacts on other organisms
- 7.5 Other Information
- 8 Methods for calculating drug efficacy
- 9 Results and Report Writing

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 8 of GB/T 17980, "Guidelines for Field Efficacy Testing 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;
- 8. Insecticide Control of Apple Leafroller;

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document replaces GB/T 17980.8-2000 "Guidelines for Field Efficacy Tests of Pesticides (I) Insecticides for the Control of Apple Leafroller", and is consistent with... Compared with GB/T 17980.8-2000, apart from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope of the document 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 17980.8-2026 is the Chinese national standard covering the trial protocol against the apple leaf roller - a larva that webs itself inside a rolled leaf or against a fruit, which makes coverage and timing the whole of the control. 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. It replaces GB/T 17980.8-2000 and has been in force since 1 September 2026, one of the 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 17980.8-2000. 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 the apple leafroller moth. This document pertains to field plot efficacy trials for the registration of insecticides used to control the apple leafroller (*Adoxophyes orana*) on apple trees. The efficacy evaluation should be carried out in accordance with the field efficacy trials for other leafroller moths on apple trees.

4 Test conditions

4.1 Test subjects and crops The test subject was the apple leafroller moth. The experimental crop is an apple tree, and it is advisable to select a locally cultivated variety. Record the variety name.

4.2 Environmental Conditions Representative orchards were selected for the experiment. All experimental plots included different crop varieties and cultivation conditions (such as soil type, fertilizer and water, tree age, and plant density). Row spacing, etc., 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 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 information 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 randomly assigned to block designs, with guard rows or isolation zones between plots. Records were kept. Neighborhood layout diagram. Other special cases should be explained.

5.3.2 Area of the community and duplication Area of the community. 3 to 5 trees. Number of repetitions. at least 4 repetitions.

6 Applying pesticides

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

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. It is advisable to apply the pesticide at the initial stage of leafroller infestation. Record the number of applications, the date of each application, and the application method. The reproductive period of plants.

6.4 Dosage Administer the medication according to the test requirements and the dosage specified on the label. Record the dosage of the active ingredient, usually expressed in mg/kg (milligrams per kilogram). For use When spraying, record both the dilution ratio and the amount of pesticide solution used per hectare, expressed in L/hm² (liters per hectare). Ensure adequate ventilation during application. Ensure accurate dosage and uniform distribution of medication. 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, active ingredient content, dosage, method of application, and administration). (Using time, target of prevention, etc.).

7.1 Drug Efficacy Survey

7.1.1 Survey Methodology Two trees were surveyed in each plot, and the number of insect infestations was recorded on 100-200 branches in the middle and lower canopy. During the initial population survey before pesticide application, the entire trial area was included. Another 100 insect packs were examined within the test area to count the number of live insects (larvae, pupae, and pupal cases) per 100 packs, in order to correct for the baseline insect population within each pack. Adjustments were made after pesticide application. During the inspection, 30 to 50 insect packs were examined in each area, and the number of live insects (larvae, pupae, and pupal cases) per 100 packs was counted to correct for the number of live insects in each pack. Number of insects.

7.1.2 Survey Time and Frequency The insect population was surveyed before pesticide application, and again on days 3 and 10 after application, for a total of 3 surveys.

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 pesticide damage can be counted or measured, express it in absolute values, such as leaf drop rate.
- 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