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

GB/T 17980.5-2026

Replacing GB/T 17980.5-2000

**Pesticides - Guidelines for field efficacy trials - Part 5:
Insecticides against cotton bollworm**

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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 5 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; ...
- 5.Insecticide Control of Cotton Bollworm; ...

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document supersedes GB/T 17980.5-2000 "Guidelines for Field Efficacy Testing of Pesticides (I) Insecticides for the Control of Cotton Bollworms", and is consistent with... Compared with GB/T 17980.5-2000, 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 descriptions and requirements for the test and control reagents have been revised (see 5.2,

1 Scope

GB/T 17980.5-2026 is the Chinese national standard covering the trial protocol for bollworm control in cotton - with the egg and larval counts and the damaged square and boll assessment on a crop that compensates for early damage and not for late. 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 17980.5-2000 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 17980.5-2000. 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 cotton bollworm. The evaluation should be conducted in accordance with the field efficacy trials for bollworm on other crops.

4 Test conditions

4.1 Test subjects and crops The test subject was the cotton bollworm. The experimental crop is cotton, and non-insect-resistant cotton varieties should be selected. Record the variety name.

4.2 Environmental Conditions The experimental sites should be selected from representative cotton fields with high levels of bollworm infestation. Cultivation conditions (soil) for all experimental plots should be specified. The types of crops, fertilizers, cultivation methods, and planting patterns (density, mulching, irrigation methods, etc.) should be uniform and consistent, and conform to local scientific agricultural practices.

5 Insecticide Control of Cotton Bollworm Published on 2026-02-

27 Implemented on 2026-09-

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

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 plots were randomly assigned to block designs, with guard rows or isolation zones between plots. Records were kept. Neighborhood layout diagram. Special cases should be explained.

5.3.2 Area of the community and duplication The area of each plot should be at least 50 square meters, and each plot should have 5 to 6 rows of cotton plants. 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 Follow the test requirements and label instructions. Application is recommended during the peak hatching period of the first and second generations of cotton bollworm eggs to the peak period of young larvae in the cotton field. Record the number of applications, the date of each application, and the crop growth stage.

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 plots were treated uniformly to minimize interference from these reagents. Degree. Record accurate information about the application of this type of medication (such as generic name of the medication, dosage form, content of active ingredient, dosage, method of application, and application method). (Time, target of prevention and control, etc.)

7.1 Drug Efficacy Survey

7.1.1 Survey Methodology Insect population survey. Five points were randomly selected in each plot, and five cotton plants with insects were marked at each point. The number of live larvae on a total of 25 cotton plants was investigated. Bud or terminal bud damage survey. For each plot, count the total number of buds and the number of damaged buds on the marked plants; when the number of buds is low, count the number of damaged terminal buds. Harmful number.

7.1.2 Survey Time and Frequency Before applying pesticides, investigate the initial insect population. After applying pesticides, investigate the number of live insects 1 day, 3 days, and 7 days. During the final investigation, investigate the damage to buds or terminal buds. For drugs with slow action or long duration of effect, the investigation period can be extended or the number of investigations can be increased.

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 the damage. Type and extent. In addition, the beneficial effects of the pesticide on the crop should also be recorded. Record pesticide damage in the following ways.