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

GB/T 17980.15-2026

Replacing GB/T 17980.15-2000

**Pesticides - Guidelines for field efficacy trials - Part 15:
Insecticides against aphids on potato and other crops**

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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 15 of GB/T 17980, "Guidelines for Field Efficacy Testing of Pesticides". GB/T 17980 has already published the following... part.

- 1.Insecticide Control of Lepidoptera Boring Pests in Rice;
- 2.Insecticide Control of Rice Leaf Roller;
- 3.Pesticide Control of Rice Leafhoppers;
- 15.Insecticides for the Control of Aphids on Potatoes and Other Crops;

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document replaces GB/T 17980.15-2000 "Guidelines for Field Efficacy Testing of Pesticides (I) - Control of Aphids on Potatoes and Other Crops with Insecticides". Compared with GB/T 17980.15-2000, the main technical changes in "Insects" 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 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 17980.15-2026 is the Chinese national standard covering the trial protocol for aphid control in field crops - where the damage that matters is usually the virus the aphid carries rather than the feeding, so speed of kill counts for more than persistence. 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, disease or weed and of the crop, and the analysis of the result. It replaces GB/T 17980.15-2000 and has been in force since 1 September 2026. It was issued on 27 February 2026 and has been in force since 1 September 2026, replacing GB/T 17980.15-2000. 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 methods for field plot efficacy tests of insecticides for controlling aphids on crops such as potatoes. This document applies to the use of insecticides to control wingless aphids on crops such as potatoes (excluding seed potatoes), beets, peas, and broad beans, including the bean aphid. The verification shall be carried out in accordance with the reference.

4 Test conditions

4.1 Test subjects and crops The experimental subject was aphids. The species of aphids were recorded. The experimental crops included potatoes (excluding seed potatoes), sugar beets, peas, and broad beans. The names of the crops and varieties were recorded.

4.2 Environmental Conditions The experimental sites were selected from representative fields with moderate aphid infestations. All experimental plots used the same crop varieties and cultivation conditions (soil type, fertilizer) as specified. The feed, cultivation, and plant spacing should be uniform and consistent, and conform to local scientific agricultural practices.

5 Experimental Design and Arrangement

5.1 Test Treatment The following treatments should be set up. test reagent, control reagent, and blank control.

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 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 arranged in a randomized block design, with protection 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 Community area. 25m²–50m². Number of repetitions. at least 4 repetitions.

6 Applying pesticides

6.1 Application Method Perform the application according to the test requirements and label instructions. The application method should be adapted to local scientific agricultural practices. Record the application method 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. Spraying is recommended at the early stage of wingless aphid infestation; seed (seed

potato) treatment is recommended after crop sowing. Pre-application. 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). 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 plots were treated uniformly to minimize interference from these reagents. Extent. Record accurate information about the application of this type of medication (such as the 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 Each plot was surveyed at 10 points, with at least one infested plant identified at each point. The number of live aphids was counted on the entire crop or on marked leaves. The aphid count was recorded for each plot. The number of insects should be no less than 500.

7.1.2 Survey Time and Frequency Spraying treatment. Insect population was assessed before application, and the number of live insects was assessed again at 1-3 days, 7 days, and 10-14 days after application, for a total of 4 assessments. Drugs with slow-acting or long-lasting effects can extend the investigation period or increase the number of investigations. Seed (seed potato) treatment. The first survey was conducted when aphids were found in the blank control area, followed by a second survey 7-14 days later, for a total of [number missing] surveys. Checked twice.

7.2 Direct impact 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 pesticide damage can be counted or measured, express it in absolute value, such