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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 17980.7-2026

Replacing GB/T 17980.7-2000

Pesticides - Guidelines for field efficacy trials - Part 7: Acaricides against spider mites on apple

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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 7 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;

7.Insecticide Control of Apple Spider Mites;

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document replaces GB/T 17980.7-2000 "Guidelines for Field Efficacy Tests of Pesticides (I) Acaricides for the Control of Apple Leaf Mites", and is consistent with... Compared with GB/T 17980.7-2000, 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 17980.7-2026 is the Chinese national standard covering the trial protocol for mite control in apple orchards - counting mites on leaves under a lens, and watching the predatory mites that a bad acaricide choice will remove along with the pest. 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 17980.7-2000 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 17980.7-2000. 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 field plot efficacy trials of acaricides for controlling apple leaf mites. Field efficacy trials of spider mites should be conducted in accordance with this procedure.

4 Test conditions

4.1 Test subjects and crops The test subjects included *Tetranychus maculatus*, *Tetranychus hawthornii*, and *Tetranychus two-spotted*. 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 The experimental sites were selected from representative orchards with moderate to severe spider mite infestations. The crop varieties and cultivation conditions (soil) of all experimental plots were also considered. Soil type, fertilizer and water, tree age, and spacing should be uniform and consistent with 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 treatments were performed using a randomized block design, with guard rows or isolation zones between cells. Records were kept. Neighborhood layout diagram. Special cases should be explained.

5.3.2 Area of the community and duplication Area of the community. 2 to 3 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 experiment according to the test requirements and label instructions. It is best to conduct the experiment during the early stages of spider mite population growth, ideally in spring when there are an average of 2-4 active mites per leaf, and in summer... Apply pesticide when there are an average of 6 to 8 active mites per leaf in autumn. 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 dosage of the active ingredient, usually in mg/kg (milligrams per kcal). The dosage is expressed in grams (g). When used for spraying, record both the dilution ratio and the amount of pesticide applied per hectare, expressed in L/hm^2 (liters per hectare). The dosage of pesticide should be accurate and evenly distributed during application. The deviation in dosage should not exceed ±10%. If it exceeds ±10%, it should be recorded and evaluated. Influence.

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 Acaricides for the Control of Apple Spider Mites Published on 2026-02-

27 Implemented on 2026-09-

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

7.1 Drug Efficacy Survey

7.1.1 Survey Methodology At least two trees should be surveyed in each area. For each tree, 10 leaves should be randomly selected from each of the five directions (east, west, south, north, and center) to collect information on active mites. quantity.

7.1.2 Survey Time and Frequency Before treatment, the initial mite population was assessed. The number of active mites was assessed at 1-3 days, 7 days, 14 days, and 21-28 days after treatment. This applies to mites with slow or prolonged effects. Long-term drugs can extend the investigation period or increase the number of investigations.

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