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

GB/T 17980.38-2026

Replacing GB/T 17980.38-2000

**Pesticides - Guidelines for field efficacy trials - Part 38:
Nematicides against crop nematode diseases (root-knot, root
lesion and stem nematodes)**

农药 田间药效试验准则 第38部分：杀线虫剂防治作物线虫病（根结线虫、根腐
线虫、茎线虫）

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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 38 of GB/T 17980, "Guidelines for Field Efficacy Testing of Pesticides". GB/T 17980 has 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;

38. Nematicides for the Control of Crop Nematode Diseases (Root-knot Nematodes, Root-rot Nematodes, Stem Nematodes);

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document supersedes GB/T 17980.38-2000 "Guidelines for Field Efficacy Testing of Pesticides (I) Control of Root Nematode Diseases with Nematicides". Compared with GB/T 17980.38-2000, the main technical changes in this document, apart from structural and editorial modifications, are as follows:

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

edition);

b) The test conditions were changed (see Chapter 4, Chapter 2 of the.2000 edition);

c) Added requirements for experimental treatments and blank controls (see 5.1);

d) The requirements for test and control reagents have been changed (see 5.2, 3.1 of the.2000 edition);

e) Changes were made to cell arrangement, cell size, and duplication requirements (see 5.3,

3.2 of the.2000 edition);

1 Scope

GB/T 17980.38-2026 is the Chinese national standard covering the trial protocol for nematicides - where the pest is invisible in the soil, the assessment means lifting the roots and counting galls, and the soil population has to be sampled before and after. 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 or disease and of the crop, and the analysis of the result. It replaces GB/T 17980.38-2000 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 17980.38-2000. 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 use of nematicides to control root-knot nematode disease and root rot nematode in crops caused by root-knot nematodes (*Meloidogynes* pp.). Field plot trials of pesticide efficacy against other root nematode diseases in crops caused by **Pratylenchus* spp.* and **Ditylenchus* spp.* method. This document applies to the registration of field pesticides for the control of root-knot nematode diseases caused by root-knot nematodes, root-rot nematodes, stem nematodes, etc. Plot trials and efficacy evaluations should be conducted. Other field efficacy trials should follow the same procedures.

4 Test conditions

4.1 Selection of test subjects, crops and varieties The test subject was root nematode disease. The experimental crops included peanuts, vegetables, medicinal herbs, sweet potatoes, and fruit trees. Non-resistant host varieties of the experimental nematodes or locally grown conventional varieties were selected. Species. Record the variety name.

4.2 Environmental Conditions Field trials should be conducted in areas with severe nematode infestations, and soil conditions should be consistent. If transplanted material is used, the presence of nematodes should be analyzed before transplantation. Parasitic nematodes. Weeds should be treated uniformly and controlled appropriately. If irrigation is necessary, record the irrigation method, time, and amount of water.

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. If the test drug is a compound formulation, a single dose of each active ingredient should also be included. Control drug. Special cases may vary depending on the purpose of the experiment. Record the Chinese/English common name, dosage form, active ingredient content, and manufacturer of the control drug. The product name, registration number, production date or batch number, and dosage are required.

5.3 Community Arrangement

5.3.1 Layout of the community The experimental, control, and blank control plots were randomly assigned using a block design, and the plot diagram was recorded. Special circumstances should be noted. illustrate.

5.3.2 Area of the community and duplication Area of the residential area. 15m²~50m² (for sheds, the area should be no less than 8m²). 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 in production, or choose equipment according to experimental requirements. Record the type of equipment used and its operating conditions (e.g., working pressure, etc.). All information regarding nozzle type

and nozzle diameter.

6.3 Application time and frequency Conduct the experiment according to the test requirements and label instructions. 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, and record the prepared dosage and the amount of active ingredient. The prepared dosage is usually expressed in mL/667m² (milliliters). The dosage is expressed as per 667 square meters (g/667m²) or g/667m² (grams per 667 square meters), while the effective ingredient dosage is expressed as g/hm² (grams per hectare). **Spray application.** When applying pesticides, record the amount of pesticide solution used per hectare, expressed in L/hm² (liters per hectare); if the application method is single-plant application, record the amount used per plant. The dosage of pesticide and water is expressed in mL/plant (milliliters per plant). Application should ensure accurate dosage and even distribution. The deviation in dosage should not exceed [a certain value]. $\pm 10\%$; if it exceeds $\pm 10\%$, its impact should be recorded and assessed.

6.5 Chemical requirements for controlling other diseases, pests, and weeds If other agents are used, those that have no effect on the test agent and the test subjects should be selected, and all plots should be treated uniformly. Use separately from test and control agents to minimize interference from these agents. Record accurate data on the application of these agents. Information such as the generic name of the drug, dosage form, content of active ingredient, manufacturer, dosage, application method, application time, and target pests.

7.1 Drug efficacy assessment

7.1.1 Investigation of root-knot nematode disease The disease severity was graded based on the number of root knots on each crop plant using either a diagonal 5-point sampling method or a random sampling method. Diseased plants are classified as follows:

0. Root system without root knots;

1. Less than 20% of the root system has root knots;

---Level 3. 20% or more but less than 40% of the root system has root knots;

---Level 5. 40% or more but less than 60% of the root system has root knots;

---Level 7. 60% or more but less than 80% of the root system has root knots;

---Level 9. 80% or more of the root system has root knots.

7.1.2 Methods for investigating root nematodes (limited to endoparasitic nematodes) For endoparasitic nematodes (root-rot nematodes), a diagonal 5-point sampling method or a random sampling method is used, with at least 2 plants investigated at each point, and the