

ICS 65.100
CCS B 17



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

GB/T 17980.40-2026

Replacing GB/T 17980.40-2000

**Pesticides - Guidelines for field efficacy trials - Part 40:
Herbicides against weeds in rice**

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Issued on: February 27, 2026

Implemented on: September 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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 40 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;
- 40. Herbicides for Controlling Weeds in Rice Paddies;

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document supersedes GB/T 17980.40-2000 "Guidelines for Field Efficacy Tests of Pesticides (I) Herbicides for the Control of Weeds in Rice Fields", and is consistent with... Compared with GB/T 17980.40-2000, 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 requirements for selecting weeds for the test subjects have been changed (see 4.2, 2.2 of the 2000 edition);
- c) Added provisions for test treatment (see 5.1);
- d) The requirements for test and control reagents have been changed (see 5.2, 3.1 of the 2000 edition);
- e) The requirements for application time have been changed (see 6.3,

1 Scope

GB/T 17980.40-2026 is the Chinese national standard covering the trial protocol for rice herbicides - applied into standing water or onto wet soil, where the water depth and its management after treatment affect the result as much as the dose does. 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 17980.40-2000 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 17980.40-2000. 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 trials of herbicides for controlling weeds in rice paddies. This document applies to field efficacy plot trials and safety evaluations of herbicides for the control of weeds in various types of paddy fields.

4 Test conditions

4.1 Selection of Rice Varieties and Cultivation Types Locally common cultivation methods should be adopted, and widely planted rice varieties should be selected. Seed quality should meet the requirements for field-use seeds in GB 4404.1. Requirements. Record the crop species (including Chinese and Latin scientific names), cultivation type, and variety name.

4.2 Selection of weeds as test subjects The weeds in the test site should be representative, the weed density should meet the experimental requirements, and the weeds should be evenly distributed. The weed community composition should be the same as that of the test herbicide. The herbicide spectrum is consistent. Record the Chinese and Latin scientific names of various weeds.

4.3 Cultivation conditions Soil conditions (soil type, organic matter content, pH, soil

moisture, fertility) and tillage practices should be uniform and consistent across all experimental plots, and should meet the requirements of the current regulations. Agricultural practices in earth science. For transplanting fields (including manual and machine transplanting), the spacing between seedlings and rows is recorded, along with the seedling age; for direct seeding... For fields, record the seeding density and seedling age; for direct seeding fields and seedbeds, record the seeding amount; other cultivation measures (such as water management) should conform to local production realities. Select flat plots to ensure that the water layer is uniform in all experimental plots (except for direct-seeded rice). Record the previous crop and the type and amount of herbicide used in the previous crop to avoid selecting plots that may affect rice growth or the effectiveness of the tested herbicide. Record the land preparation time and method, water layer depth and management method, and the irrigation and drainage time and method of the community.

5 Experimental Design and Arrangement

5.1 Test Treatment Treatments such as experimental agents, control agents, manual weeding, and blank control should be set up.

5.2 Reagents

5.2.1 Test reagents The test reagent treatment includes four dosages. high, medium, low, and twice the medium dose. Additional dosages may be set according to experimental requirements in special cases. Specify the reagent dosage. The text includes the generic name or code in English, dosage form, active ingredient content, manufacturer, production date or batch number, 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 action of the control agent should be specified. The formulation and herbicidal spectrum should be the same as or similar to the test agent, and the registered dosage and application method should be used. If the test agent is a mixture, it should also be... Each active ingredient, in single-dose form, serves as a control. Specific measures may be taken 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 Different treatment plots in the experiment were arranged in a randomized block design. In special cases, comparative, in-between, or irregular arrangements may be used. List them and explain them.

5.3.2 Area of the community and duplication The area of each plot is as follows: 20m²~30m² for direct seeding, transplanting, and broadcast seedling fields; 4m²~6m²

for seedbeds. The plots are rectangular in shape. Number of repetitions. no less than 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 Use commonly used equipment, or select equipment according to the test requirements. When using the spray method for pesticide application, choose a sprayer with stable pressure and a fan-shaped nozzle. The sprayer is used to apply the pesticide, ensuring that the pesticide is evenly distributed throughout the entire test plot or accurately and directionally distributed to the target area. Record the amount used. Information such as equipment type and operating conditions (working pressure, nozzle type, nozzle diameter, flow rate, etc.).

6.3 Application time and frequency Follow the test requirements and label instructions. If the application time is not specifically specified on the label, it should be determined based on the test objective and the test reagent. The application of pesticides is based on their therapeutic properties. Application time is divided into.

---Direct seeding and seedbed (dry seedling raising, wet seedling raising). - Before sowing (with or without soil) - Post-sowing and pre-emergence (with or without soil) - After sowing and covering with soil, but before mulching, - After rice seedlings emerge;

---Transplanted fields and seedbeds. - Pre-transplanting or seedling preparation - Post-transplanting or seedling disposal treatment. Record the date and time of application, as well as the growth status of weeds and rice at the time of application (growth stage and the proportion of each type of weed, etc.).

6.4 Dosage and Water Consumption Apply the pesticide according to the test requirements and the dosage and water usage specified on the label. The dosage of the pesticide is expressed in g/hm² (grams per hectare) of active ingredient. Dosage is expressed in mL/667m² (milliliters per 667 square meters) or g/667m² (grams per 667 square meters), and water consumption is expressed in L/hm² (liters per hectare). The volume is expressed in liters per hectare (L/667m²) and liters per 667 square meters (L/667m²). When the water volume is not specified in the experiment, it can be determined based on the mode of action of the test agent and the type of sprayer. The water consumption should be determined based on the type of pesticide and local production conditions. Accurate dosage should be ensured during pesticide application; the dosage deviation between replicates of the same treatment should not exceed [a certain value]. $\pm 5\%$. Record factors affecting efficacy, duration of action, and selectivity.

6.5 Data requirements for pesticides used to control pests, diseases, and non-target weeds