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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

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GB/T 17980.44-2026

Replacing GB/T 17980.44-2000

Pesticides - Guidelines for field efficacy trials - Part 44: Herbicides against weeds in orchards

农药 田间药效试验准则 第44部分：除草剂防治果园杂草

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Standardization Administration of the PRC

Preview: page 1 of 5 shown, 30 in the full document. Complete English PDF, instant download:
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Table of Contents

1 Scope
2 Equivalent to 0.1%~2.5% of the blank control area; - Level
3 Equivalent to 2.6%~5% of the blank control area; - Level
4 Test conditions
5 Experimental Design and Arrangement
5.2 Reagents
5.3 Community Arrangement
6 Applying pesticides
7 Survey
7.1 Weed Survey
7.2 Crop pesticide damage survey
7.5 Other investigations and records
8 Equivalent to 35.1%~67.5% of the blank control area; - Level

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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 44 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;

44.Herbicides for Controlling Weeds in Orchards;

---Part 149: Insecticides for the Control of Red Imported Fire Ants. This document supersedes GB/T 17980.44-2000 "Guidelines for Field Efficacy Testing of Pesticides (I) Herbicides for Controlling Weeds in Orchards", and is consistent with... Compared with GB/T 17980.44-2000, 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);

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b) The requirements for selecting the test weeds 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 the area of the residential area have been changed (see 5.3.2,

1 Scope

GB/T 17980.44-2026 is the Chinese national standard covering the trial protocol for orchard herbicides - the weed assessment by species and cover, and the crop safety observations on trees that will be in the same ground for twenty years. 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 17980.44-2000 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 17980.44-2000. 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 orchard weeds. This document applies to registered fields for herbicide control of weeds in orchards containing pome fruits, stone fruits, nuts, berries, persimmons, dates, citrus fruits, etc. Inter-drug efficacy small-area trials and safety evaluation.

4 Test conditions

4.1 Selection of Crops and Cultivars Use locally common cultivation methods and select widely planted varieties. Record crop species (including Chinese and Latin scientific names) and cultivation types. 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

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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 the field of earth science. The cultivation methods, plant spacing, and row spacing of the tested fruit trees should conform to local production realities. The age of the fruit trees, etc., should be considered. The cultivar, rootstock, and growth vigor are consistent. It is advisable to conduct trials in densely planted orchards. Record the herbicides used in the previous growing season to avoid selecting plots that may affect crop growth or the effectiveness of the tested herbicides.

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. Please provide an explanation.

5.3.2 Area of the community and duplication The area of each residential area ranges from 20m^2 to 80m^2, and each area must include at least 3 trees. The shape of the residential area is rectangular. Number of repetitions. no less than 4 repetitions.

6 Applying pesticides

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6.1 Application Method Follow the test requirements and label instructions, and ensure that the application of pesticides is compatible with local scientific agricultural practices. Record the application methods and procedures.

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.

a) Before weeds emerge;

b) After the weeds sprout. Record the date and time of pesticide application, and the growth status of weeds and crops at the time of application (weed growth stage, proportion of each type of weed, and the condition of fruit trees). Age and growth and development period, 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/hm^2 (grams per hectare) of active ingredient. Dosage is expressed in mL/667m^2 (milliliters per 667 square meters) or g/667m^2 (grams per 667 square meters), and water consumption is expressed in L/hm^2 (liters per hectare). The volume is expressed in liters per hectare (L/667m^2) and liters per 667 square meters (L/667m^2). 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]. ±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 If other pesticides are used during the trial, those that have no effect on the test pesticide, target weeds, and crops should be selected, and all plots should be treated. Treat uniformly. It should be used separately from the test and control agents, and the name, timing of application, method of application, and dosage of the agent should be recorded. Action targets, etc.

7.1 Weed Survey

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