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

**GB/T 20183.4-2025**

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**Equipment for crop protection - Spraying equipment - Part 4:  
Test methods for agitation of sprayer tanks**

植物保护机械 喷雾设备 第4部分：药液箱搅拌试验方法

**(English Translation)**

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### Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is part 4 of GB/T 20183 "Mechanical spray equipment for plant protection". GB/T 20183 has been published for the following part.

- Part 1: Test methods for spray nozzles;
- Part 2: Test method for evaluating the horizontal lateral distribution of hydraulic sprayers;
- Part 3: Test method for evaluating the performance of the system for regulating the amount of liquid applied per unit area;
- Part 4: Test method for stirring tank.

This document is equivalent to ISO 5682-4:2021 "Mechanical spray equipment for plant protection - Part 4: Test method for stirring the spray tank".

### Introduction

GB/T 20183 "Mechanical spray equipment for plant protection" is intended to describe the test methods for mechanical spray equipment for plant protection. It is planned to consist of four parts.

Grouped into.

- Part 1: Test method for spray nozzles for sprayers. The purpose is to describe the test method for the spray accuracy of hydraulic nozzles for sprayers.
- Part 2: Test methods for evaluating the horizontal lateral distribution of hydraulic

sprayers. The purpose is to describe three test methods to evaluate the horizontal lateral distribution of hydraulic sprayers.

Horizontal distribution of the amount of pesticide applied by the same type of sprayers.

--- Part 3: Test method for evaluating the performance of the system for regulating the amount of liquid applied per unit area. The purpose is to describe the amount of liquid applied per unit area.

Test conditions, test methods and calculation methods for quantity regulation systems.

--- Part 4: Test method for stirring the liquid tank. The purpose is to describe the performance of the stirring system in the liquid tank of plant protection machinery.

method.

Mechanical spray equipment for plant protection Part 4: Test method for stirring tanks

## 1 Scope

This document describes a test method for the performance of mixing systems in sprayer tanks used for spraying pesticides and liquid fertilizers.

This document does not apply to hand sprayers, manned aerial sprayers or crop protection drones.

## 2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

**Note:** GB/T 20085-2024 Vocabulary of plant protection machinery (ISO 5681:2020, MOD) GB/T 20183.1-2024 Mechanical spray equipment for plant protection Part 1: Test methods for sprayer nozzles (ISO 5682-1.

2017, IDT)

## 3 Terms and definitions

For the purpose of this document, the terms and definitions defined in ISO 5681 and the following apply.

ISO and IEC maintain databases of standardized terms at the following URLs.

Sample concentration sample concentration it is calculated by the mass ratio of the sample

dry matter to the mass of the suspension (dry matter water).

#### **4.1.1 General requirements**

The measuring equipment shall comply with the requirements of Chapter 4 of GB/T 20183.1-2024.

#### **4.1.2 Weighing balance for sample evaporator**

The balance used to measure the mass of the evaporating dish/tank before and after evaporation should have a minimum measuring range of 0g~100g and a maximum error of 0.001g.

#### **4.1.3 Weighing balance for test materials**

The balance used to measure the test material added to the tank shall have a maximum error of 0,1 % of the measured value.