

CCS B 91



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

**GB/T 20346.1-2021**

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**Equipment for distributing fertilizer - Part 1: Full width fertilizer  
distributors**

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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 of Standardization Documents"

drafted:

This document is part 1 of GB/T 20346 "Fertilization Machinery": GB/T 20346 has released the following parts:

--- Part 1: Full width fertilizer spreaders;

--- Part 2: Fertilizers between rows:

This document replaces GB/T 20346:1-2006 "Fertilization Machinery Test Method Part 1: Full Width Fertilizer": and

Compared with GB/T 20346:1-2006, in addition to structural adjustment and editorial changes, the main technical changes are as follows:

- a) Modified the scope of the standard (see Chapter 1, Chapter 1 of the:2006 edition);
- b) terms and definitions are added (see 3:2);
- c) Added requirements for model preparation (see Chapter 4);
- d) Added operational performance requirements (see 5:1);
- e) Added safety requirements (see 5:2);
- f) Added the requirements for supporting power, hydraulic system, lubrication system and electrical system (see 5:3~5:6);
- g) Added requirements for main parts (see 5:7);
- h) Added assembly requirements (see 5:8:2~5:8:3);
- i) Added the requirements for dry running (see 5:8:4~5:8:5);
- j) Appearance requirements and instructions for use are added (see 5:9~5:10);

- k) added alternative methods of fertilizer collection (see 6:6);
- l) The test method for uniformity of fertilization has been added (see 6:7:2:1:2);
- m) The contents of other inspections have been added (see 6:12);
- n) Added decision rules (see Chapter 7);
- o) Added marking, packaging, transportation and storage (see Chapter 8):

This document uses the redrafted method to modify the use of ISO 5690-1:1985 "Fertilization Machinery Test Methods Part 1: Full-width Fertilizer Spreading" machine":

Compared with ISO 5690-1:1985, this document has many structural adjustments: Appendix A lists this document and ISO 5690-1:1985:

The chapter number comparison list:

The technical differences between this document and ISO 5690-1:1985 and the reasons are as follows: The clauses involved in these differences have been identified by the outer margins:

The vertical single line in the white position is identified:

--- Modified the standard scope (see Chapter 1):

--- Regarding normative reference documents, this document has made adjustments with technical differences to adapt to the technical conditions of our country:

as follows:

- \* Replacing ISO 565 with GB/T 6005 modified to adopt international standards (see C:2);
- \* Replace ISO 3944 with GB/T 13566:1 which is equivalent to adopting international standards (see C:3);
- \* Replace ISO 5699 with GB/T 9482 which is equivalent to adopting international standards (see D:2:1:2);
- \* Added references to GB/T 699-2015 (see 5:7:1), GB/T 1147:1 (see 5:3:1), GB/T 1592:1-2016 (see 5:3:1)
- 6:4), GB/T 3098:1-2010 (see 5:8:2), GB/T 3098:2-2015 (see 5:8:2), GB/T 4269:1 (see 5:8:2)
- 5:7:5:1), GB/T 4269:2 (see 5:7:5:1), GB/T 5262-2008 (see C:4), GB/T 5667 (see 6:12:1),
- GB/T 9480 (see 5:10), GB 10395:1 (see 5:2:1, 5:2:2, 6:12:5), GB 10395:3-2019 (see 5:2:5,
- 5:2:6), GB 10395:3 (see 6:12:5), GB 10396 (see 5:2:3, 6:12:5), GB/T 14248 (see 6:12:2,

6:12:3), GB/T 20341 (see D:2:1:3), GB 20891 (see 5:3:3, 6:12:7), GB/T 23821 (see 5:2:2, 6:12:5), JB/T 5673 (see 5:9), JB/T 6268 (see 6:12:4), JB/T 8574 (see 4:1), JB/T 9832:2 (see 6:12:4)

6:12:6);

\* Removed ISO 500, ISO 3339/0, ISO 3534, ISO 3789, ISO 5698:

--- Added terms and definitions (see Chapter 3):

--- Added model preparation (see Chapter 4):

--- Increased technical requirements (see Chapter 5):

--- Added alternative methods for fertilizer collection (see 6:6):

--- Increased the uniformity test method for spreading fertilizer (see 6:7:2:1:2):

--- Added other inspection content (see 6:12):

--- Added decision rules (see Chapter 7):

--- Increased marking, packaging, transportation and storage (see Chapter 8):

--- Increased the determination method of fertilizer moisture content (see C:4):

The following editorial changes have been made to this document:

--- Changed the standard name:

Please note that some content of this document may be patented: The issuing agency of this document assumes no responsibility for identifying patents:

## Introduction

This document is modified using ISO 5690-1:1985: The release and implementation of this document has promoted the use and development of fertilization machinery in my country: organic

Fertilizer manure (fermented fertilizer) and granular fertilizer are important fertilizer sources for agricultural production:

It plays an important role in improving crop yield and quality: Organic fertilizer is an "environmentally friendly fertilizer" organic fertilizer that meets the requirements of the times:

Water, save water, reduce water loss and evaporation, reduce the effect of drought, can reduce fertilizer application, reduce salinity damage, soil conditioning, stimulate

The active rate of microorganisms in living soil can also overcome soil compaction and increase soil air permeability: Reduce land degradation due to fertilizers, slabs

It is of great significance to effectively promote plant growth and form high-standard farmland: According to the characteristics of field fertilization machinery, this series of fertilization

The Fertilizer Machinery document is divided into the following two parts:

--- Fertilization Machinery Part 1: Full-width Fertilizer Spreaders;

--- Fertilizers Part 2: Fertilizers between rows:

This document is the first part of a series of standards: This document provides the technical basis for the design and manufacture of full-width fertilizer spreaders:

Obtain the technical indicators and performance parameters of the fertilizer spreader in the form of text description or chart, and provide technical support for the trade and quality management of the fertilizer spreader:

technical basis:

Fertilizer Machines Part 1: Full Width Fertilizer Spreaders

## 1 Scope

This document specifies the model preparation, technical requirements, test methods, judgment rules and signs, packaging, transportation and storage of full-width fertilizer spreaders:

This document is applicable to the full-width fertilizer spreader (hereinafter referred to as the spreader) that spreads manure (fermented fertilizer), granular fertilizer or fertilizer (solid fertilizer) with similar properties:

fertilizer machine):

This document does not apply to equipment that distributes micro-grain pesticides or herbicides:

The test methods specified in this document may be deleted according to different models and requirements:

## 2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to

this document:

GB/T 699-2015 High-quality carbon structural steel