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

GB/T 5506-1985

Replacing GB/T 5506.1-2008

**Wheat and wheat flour - Gluten content - Part 1: Determination
of wet gluten by manual method
(English Translation)**

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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 1 of GB/T 5506 "Wheat and Wheat Flour Gluten Content". GB/T 5506 has already published the following parts.

---Part 1: Determination of wet gluten using the hand-washing method;

---Part 2: Instrumental determination of wet gluten and gluten index;

---Part 3: Determination of Dry Gluten by Oven Drying Method;

---Part 4: Determination of dry gluten by rapid drying method this document replaces GB/T 5506.1-2008 "Wheat and Wheat Flour Gluten Content Part 1: Determination of Wet Gluten by Hand Washing Method", and is consistent with...

Compared with GB/T 5506.1-2008, apart from structural adjustments and editorial changes, the main technical changes are as follows.

---The definitions of the terms "whole wheat flour," "granular flour," and "wet gluten" have been changed (see Chapter 3, Chapter 3 of the 2008 edition);

---The term and definition of "wheat flour" have been removed (see 3.4 in the 2008 edition);

---Sampling requirements have been changed (see Chapter 7, Chapter 7 of the 2008 edition);

---The method for determining moisture content has been changed (see Chapter 8, Chapter 8 of the 2008 edition);

- The sampling requirements have been changed (see 9.2, 2008 version 9.2);
- The dough kneading time requirement has been changed (see 9.3.2, 9.3.3 in the 2008 version);
- The requirement for resting the dough has been added (see 9.3.3);
- Added a formula for calculating wet gluten content (14% moisture basis) (see 10.2);
- Precision requirements have been changed (see Chapter 11, Chapter 10 in the 2008 edition);
- The chapter and content of the test report (Chapter 11 in the 2008 edition) have been deleted.

This document is modified to adopt ISO 21415-1:2006 "Wheat and wheat flour gluten content - Part 1: Determination of wet gluten by hand washing method".

Compared with ISO 21415-1:2006, this document has undergone the following structural adjustments.

- Added versions 5.1, 5.2, and 5.3;
- 5.4~5.13 correspond to sections 5.1, 5.2, 6.3, 6.1, 6.4, 6.9, 6.7, 6.13, 6.12, and 6.8 of ISO 21415-1:2006, respectively;
- Sections 6.1 to 6.3 correspond to sections 6.14, 6.2, and 6.11 of ISO 21415-1:2006, respectively;
- 9.3.2 corresponds to 9.3.2 and 9.3.3 of ISO 21415-1:2006;
- 9.3.3 corresponds to 9.3.4 of ISO 21415-1:2006;
- 9.4.2 corresponds to 9.4.2 and 9.4.4 of ISO 21415-1:2006;
- 10.1 corresponds to sections 9.7 and 10 of ISO 21415-1:2006, and section 10.2 has been added;
- Chapter 11 corresponds to 11.1 of ISO 21415-1:2006;
- Chapters 6.5, 6.6, 6.10, and 12 of ISO 21415-1:2006 have been deleted;
- Appendix A of ISO 21415-1:2006 has been deleted, and subsequent appendix numbers have been moved forward.

The technical differences between this document and ISO 21415-1:2006, and the reasons therefor, are as follows.

- The term and definition of "wheat flour" have been removed, and GB/T 1355 has been added as a reference document in the introductory section of the "Terms and Definitions" chapter.

(See Chapter 3), which aligns with practical applications;

---The definitions of the terms "whole wheat flour" and "wet gluten" have been revised (see Chapter 3) to align with relevant Chinese standards and conform to practical application;

---Added requirements for laboratory water use and standardized reference to GB/T 6682 (see Chapter 5), meeting testing needs and avoiding laboratory-related issues.

Differences in water usage between regions;

---The sampling requirements have been changed, replacing ISO 6644 or ISO 13690 with the normatively referenced GB/T 5491 (see Chapter 7), and the symbols...

A sample that conforms to my country's existing grain storage methods;

---The method for determining moisture content has been modified, and the normative references GB 5009.3 or GB/T 5497 have been added for moisture content determination.

This is specified (see Chapter 8) to facilitate the calculation of wet gluten content (14% moisture basis);

---The general requirement has been changed (see 9.1) to ensure that the sample temperature is consistent with the solution temperature;

---The sample weighing requirements have been changed (see 9.2), making it easier to handle and wash smaller samples;

---The amount of water added for dough preparation was changed (see 9.3.1), and the sample size was reduced, thus reducing the corresponding amount of water added for kneading;

---The method for resting the dough has been changed (see 9.3.3) to make it easier for experimenters to choose the appropriate method.

---The centrifuge device and its requirements, as well as the drainage method (see 9.5.2), have been added for ease of use;

---The formula for calculating wet gluten content has been modified (see 10.1) to conform to the wet gluten content calculation in this document;

---A formula for calculating wet gluten content (14% moisture basis) has been added (see 10.2) to facilitate direct calculation when using results on a 14% moisture basis;

---The precision requirements have been changed, and the precision calculations have been redone (see Chapter 11), making it more suitable for sample testing in my country;

---The chapter and content on "Inspection Reports" have been deleted to ensure consistency with my country's inspection method standards;

---The preparation requirements for whole wheat flour have been revised (see Appendix A),

and the detailed description has been simplified;

---The normative annex "Extruded Gluten Sheets" in ISO 21415-1 has been deleted. The requirements for extruded gluten sheets differ from those of extruded gluten sheets using the adopted standard, and they conform to...

The requirements in 5.12 are sufficient.

The following editorial changes have been made to this document.

---Added a note for the term "wet gluten";

---Appendix B replaces ISO 5725-1 with the informative references GB/T 6379.1-2004 and GB/T 6379.2-2004.

ISO 5725-2, and replaced the international test results with the interlaboratory validation results of ordinary wheat, whole wheat flour, and wheat flour organized by my country.

Laboratory validation results.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the National Food and Strategic Reserves Administration.

This document is under the jurisdiction of the National Technical Committee on Standardization of Grain and Oil (SAC/TC270).

Introduction

GB/T 5506 "Gluten Content of Wheat and Wheat Flour" adopts ISO 21415 (all parts), and the settings of each part are consistent with international standards.

It is consistent and is proposed to consist of 4 parts.

---Part 1: Determination of wet gluten content by hand washing method. The purpose is to describe a method for determining wet gluten content by hand washing.

---Part 2: Instrumental Determination of Wet Gluten Content and Gluten Index. The purpose is to describe the instrumental determination of wet gluten content and gluten index.

The method.

---Part 3: Determination of Dry Gluten Content Using Oven Drying Method. The purpose is to describe a method for determining the dry gluten content using an oven drying method.

---Part 4: Determination of Dry Gluten Content Using a Rapid Drying Method. The purpose is to describe a method for determining the dry gluten content using an electrically heated dryer.

gluten content of wheat and wheat flour Part 1: Hand Washing Method for Determining Wet