

ICS 67.200.20

CCS X 14



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

GB/T 22182-2025

Replacing GB/T 22182-2008

**Determination of chlorophyll content of rapeseed -
Spectrometric method**

油菜籽叶绿素含量的测定 分光光度计法

(English Translation)

Issued on: December 31, 2025

Implemented on: July 1, 2026

Issued by: State Administration for Market Regulation

Table of Contents

Foreword
1 Scope
2 Normative references
3 Terms and Definitions
4 Principles
5 Reagents

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 supersedes GB/T 22182-2008 "Determination of Chlorophyll Content in Rapeseed - Spectrophotometric Method", and is consistent with GB/T 22182-2008.

In comparison, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- The description of the micro mechanical grinder has been revised (see 6.3, 9.1, 9.2.1, and 6.3, 9.1, 9.2.1 in the 2008 edition);
- The units for the optical path length of the cuvettes have been changed (see Chapter 10, Chapter 10 in the 2008 edition);
- The repetitiveness requirement has been changed (see 11.2, 11.1 in the 2008 version);
- The reproducibility requirement has been changed (see 11.3, 11.2 in the 2008 edition).

This document adopts ISO 10519:2015 "Determination of chlorophyll content in rapeseed - Spectrophotometric method".

The following minimal editorial changes have been made to this document.

- To align with existing standards, the standard name has been changed to "Spectrophotometric Method for Determination of Chlorophyll Content in Rapeseed".

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).

1 Scope

This document describes a spectrophotometric method for determining the chlorophyll content of rapeseed.

This document applies to the determination of chlorophyll content in rapeseed.

This document is not applicable to the determination of chlorophyll content in oils and fats.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

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

This document.

matter content)

Note: GB/T 14489.1-2008 Determination of moisture and volatile matter content in oilseeds (ISO 665:2000, IDT)

3 Terms and Definitions

The following terms and definitions apply to this document.

chlorophyll content

Under the operating conditions specified in this document, the mass fraction of substances in the sample that can produce absorption bands at a wavelength of around 665 nm.

Note: Chlorophyll content is expressed in milligrams per kilogram (mg/kg).

4 Principles

In appropriate equipment, the sample is extracted with a prescribed extractant, and the absorbance of the sample extract solution is measured using a spectrophotometer to determine chlorophyll content.

The content of elements.

5 Reagents

Unless otherwise specified, all reagents were of analytical grade.

Take 100 mL of anhydrous ethanol into a 500 mL beaker, then add 300 mL of anhydrous isooctane (i.e., 2,2,5-trimethylpentane) or anhydrous...

n-Heptane or anhydrous petroleum ether (the basic components are C7 hydrocarbons, with a boiling range of 90°C~100°C).