ICS 65.020.01
CCS B 20

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 21124-2026

Replacing GB/T 21124-2007

Determination of black point kernels in wheat

小麦黑胚粒检验方法

Issued on: March 31, 2026 **Implemented on: October 1, 2026**

Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC

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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 replaces GB/T 21124-2007 "Test Method for Black Germ Grains of Wheat". Compared with GB/T 21124-2007, except for structural adjustments and... Aside from editorial changes, the main technical changes are as follows:

---The "Principles" have been changed (see Chapter 4, Chapter 4 of the.2007 edition);

---The word "instrumentation" has been changed (see 5.3, 5.4, 5.3,

5.4 in the.2007 edition);

---Added "Lighting Conditions" (see Chapter 6);

---The word "sampling" has been removed (see

6.1 in the.2007 edition);

---The section on "Sample Preparation" has been amended (see Chapter 7,

6.2 of the.2007 edition);

---The "Experimental Procedure" has been revised (see Chapter 8,

6.3 of the.2007 edition);

--- The "Result Calculation" has been changed (see Chapter 9,

6.4 of the.2007 edition). 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 and is under the jurisdiction of the Ministry of Agriculture and Rural Affairs of the People's Republic of China. This document was drafted by the Institute of Agricultural Product Quality and Safety, Heilongjiang Academy of Agricultural Sciences, and the National Agricultural Technology Extension Service Center.

The main drafters of this document are. Cheng Aihua, Dai Changjun, Wang Cuiling, Liang Jian, Liu Akang, Pan Bo, Chen Danyang, and Wang Zheng. The release history of this document and the document it replaces is as follows:

1 Scope

GB/T 21124-2026 is the Chinese national standard covering black point in wheat - the dark discolouration of the germ end caused by fungi in a wet season, which downgrades the grain and darkens the flour milled from it. It replaces GB/T 21124-2007 and has been in force since 1 October 2026. It was issued on 31 March 2026 and takes effect on 1 October 2026, replacing GB/T 21124-2007. 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 principles, instruments, lighting conditions, sample preparation, test procedures, result calculation, and precision of wheat black germ grain testing. This document applies to the inspection of black wheat germ grains.

4.Principles Fungi such as *Alternaria* spp., *Bipolaris* spp., and *Fusarium* spp. are found in wheat seeds. The grain turns dark brown or black due to fungal infection. When the infection is limited to the end of the embryo, black spots will appear on the embryo. If the infection area is throughout the grain... A black spot can appear on the surface of the kernel, covering an area. Sensory inspection can be conducted based on the degree of discoloration and whether the embryo or endosperm is damaged. To examine the black embryo grains.

5 Instruments

5.1 Balance. Sensitivity 0.01g.

5.2 Grain sieves. 1.5mm sieve, 4.5mm sieve.

5.3 Sample divider, sample plate, analysis tray, tweezers, blade.

5.4 Magnifying glass (5x or higher) or stereoscope or dissecting microscope.

6 Lighting conditions

It should comply with the requirements of GB/T 22505.

7.Sample Preparation According to GB/T 5494, for the inspection of large sample impurities, take 50g of sample from the sample after removing large sample impurities, accurate to 0.01g.

8 Test Procedure

8.1 Place the sample weighed according to Chapter 7 on the analytical plate and observe it with the naked eye. Pick out wheat grains whose embryos or seed coats are distinctly dark brown. Or black seeds.

8.2 Cut open the kernel with a blade or scrape off the seed coat down to the endosperm. Use a magnifying glass, stereomicroscope, or dissecting microscope to observe the color of the embryo or endosperm and the interior of the kernel. Discolored grains were classified as black germ and weighed to an accuracy of 0.01g. See Appendix A for sensory identification illustrations of wheat black germ.

9.Result Calculation The black embryo percentage in the sample is calculated according to formula (1).

10 Precision Under repeatability conditions, the absolute difference between two independent test results should not exceed 0.5%. GB/T 21124-2026. Test Method for Black Germ Grains of Wheat ICS

20 National Standards of the People's Republic of China Replaces GB/T 21124-2007 Methods for testing wheat black germ grains Published on 2026-03-

31 Implemented on October 1, 2026 State Administration for Market Regulation The State Administration for Standardization issued a statement.