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

GB/T 5499-2025

Replacing GB/T 5499-2008

**Inspection of grain and oils - Determination of pure kernel yield
of unhulled oilseeds**

粮油检验 带壳油料纯仁率检验法

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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 supersedes GB/T 5499-2008 "Grain and Oil Inspection - Test Method for Pure Kernel Rate of Shelled Oilseeds" and is consistent with GB/T 5499-2008. Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope has been changed (see Chapter 1, Chapter 1 of the.2008 edition);
- b) The instruments and equipment were changed (see Chapter 4, Chapter 4 of the.2008 edition);
- c) The sample weight has been changed (see 6.1,.2008 edition of 6.1);
- d) Automatic peeling has been added (see 6.2.2);
- e) Increased precision (see Chapter 8). 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). This document was drafted by: Hubei Provincial Grain and Oil Food Quality Supervision and Inspection Center, Wuhan Xingang Technology Co., Ltd., Nanjing University of Finance and Economics, and the National... Standards and Quality Center of the State Grain and Material Reserves Administration, Wuhan University of Light Industry, Hunan Provincial Grain and Oil Product Quality Monitoring Center, Wuhan Municipal Grain Reserve Security Center Heart, Three Gorges Public Inspection and Testing Center, Jingzhou Municipal Food and Drug Inspection Institute. The main drafters of this document are. Liu Jian, Gao Jin'e, Yuan Jian, Yang Lifei,

Zhang Sihong, Liu Li, Liu Yong, Wang Yan, Tian Hua, Gao Qian, Zhang Xin, and Mei Guang. Qin Shicong, Mao Hongxia, Wei Junjun, Ni Xiaoying, Sun Tinglin, Peng Mao, Qin Leilei, Wang Xiaopeng, Wu Lili, Li Guanglei. The release history of this document and the document it replaces is as follows:

---First published in 1985 as GB/T 5499-1985, and revised for the first time in 2008;

---This is the second revision. Grain and Oil Inspection Method for Pure Kernel Rate of Shelled Oilseeds

1 Scope

GB/T 5499-2025 is the Chinese national standard covering the kernel fraction of an unhulled oilseed lot - the sample, the shelling and the separation of sound kernel from shell and damaged material, and the percentage that determines what the lot is actually worth to a crusher. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 5499-2008.

This document defines the terminology and definitions for the inspection of the kernel purity of oilseeds with shells, and describes the inspection method for the kernel purity of oilseeds with shells. This document applies to the inspection of the kernel purity of shelled oilseeds (such as peanuts, sunflower seeds, cottonseeds, etc.). This document is not applicable to the kernel purity test of woody oilseeds with shells.

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.

GB/T 5491 Sampling and Divided Sampling Methods for the Inspection of Grains and Oils

GB/T 5494 Grain and Oil Inspection. Inspection of Impurities and Defective Grains in Grains and Oilseeds

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Pure benevolence rate purekernelyield The mass of usable kernels obtained after dehulling the shelled oilseed sample (with imperfect kernels counted at half the weight) as a percentage of the total mass of the net sample. Fraction.

4 Instruments and Equipment

4.1 Balance. Sensitivity 0.01g.

4.2 Sample divider or sample plate.

4.3 Analysis panel.

4.5 Shelling machine. A machine that can remove the outer shell of oilseeds with shells, with a shelling rate of more than 85%.

5 Sample Preparation

5.1 Take samples according to the provisions of GB/T 5491.

5.2 Remove all impurities and shelled kernels from the large sample according to GB/T 5494 to obtain a clean sample.

6 Operating Steps

6.1 Weigh the sample Weigh (m) the net sample as specified in 5.2. For extra-large peanut kernels, weigh approximately 300g, accurate to 0.01g; for large sunflower seeds...