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

GB/T 46296-2025

Grain and oil machinery - Multigrain colour sorter

粮油机械 杂粮色选机

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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. 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: Guoliang Wuhan Scientific Research and Design Institute Co., Ltd., Hefei Meiya Optoelectronic Technology Co., Ltd., and Anhui Jiexun Optoelectronics Technology Co., Ltd. The main drafters of this document are: Xie Jian, Tian Ming, Wu Ming, Yang Huibin, Wang Chunlan, Gao Chun, Ma Jun, and Bao Xinbin. Grain and oil machinery, grain color sorter

1 Scope

GB/T 46296-2025 is the Chinese national standard covering the optical sorter set to work on beans, millet and buckwheat rather than rice - the cameras and the illumination, the ejector response, the sorting accuracy and the good grain carried out with the rejects, and the re-sort pass. First edition, under the National Food and Strategic Reserves Administration. In force from 1 May 2026. Issued on 5 October 2025, it has been in force since 1 May 2026.

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 191 Packaging and Storage Graphic Symbols

GB/T 3768 Acoustic pressure method for determining the sound power level and sound energy level of a noise source using a simplified measurement method based on the envelope above the reflecting surface. Easy Method

GB/T 5226.1 Electrical Safety of Machinery - Electrical Equipment of Machinery - Part

GB 5491 Sampling and Divided Sampling Methods for Grain and Oilseed Inspection GB/T 8231 Sorghum

GB/T 8875 Grain and Oil Terminology - Rice Milling Industry

GB/T 9969 General Rules for Instructions for Use of Industrial Products GB/T 10459 Broad beans GB/T 10462 Mung Beans GB/T 13306 Nameplates

GB 16798 Safety Requirements for Food Machinery

GB/T 24854 General Technical Requirements for Packaging of Grain and Oil Machinery Products

GB/T 24855 General Technical Requirements for the Assembly of Grain and Oil Machinery

GB/T 25218 General Technical Requirements for Coating of Grain and Oil Machinery Products

3 Terms and Definitions

The terms and definitions defined in GB/T 8231, GB/T 8875, GB/T 10459 and GB/T 10462, as well as the following terms and definitions, apply to this document.

3.1 This device uses photoelectric principles to select discolored grains from miscellaneous grains based on differences in optical characteristics.

Note. It mainly consists of a feeding mechanism, a conveying mechanism, a photoelectric detector, an execution unit, and a computer control system as its core components.

3.2 Discolored kernels Particles that are significantly different in color from the normal grains in the batch and whose discoloration exceeds 1 mm^2 .