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

GB/T 18525.7-2026

Replacing GB/T 18526.4-2001

**Irradiation processing practice for agricultural products - Part
7: Spices and seasonings**

农产品辐照工艺 第7部分：香料和调味品

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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 7 of GB/T 18525 "Irradiation Processes for Agricultural Products". GB/T 18525 has already published the following parts.

- 1. Legumes and their products;
- 2. Cereals and their products;
- Irradiation process for insect control and mold prevention in dried shiitake mushrooms (GB/T 18525.5);
- 6. Dehydrated Vegetables;
- 7. Spices and Seasonings;
- 8. Cooked Meat Products;
- 11. Dried Longan;
- 12. Pollen. This document replaces GB/T 18526.4-2001 "Irradiation Sterilization Process for Spices and Seasonings". Compared with GB/T 18526.4-2001, except for... 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 2001 edition);
 - b) The terms and definitions of "spices" and "seasonings" have been changed (see 3.1, 3.2, and 3.2 in the 2001 edition);

c) Added terms and definitions for "process dosage", "dosage non-uniformity", "dosage distribution test", and "average absorbed dose" (see 3.5). 3.6, 3.7, 3.8);

4 Irradiation device

4.1 Irradiation devices shall comply with the relevant provisions of GB/T 17568 and GB/T 25306.

4.2 The irradiation device shall be a gamma-ray device that produces ^{60}Co or ^{137}Cs radionuclides, or an accelerator with an electron beam energy not exceeding 10 MeV. The device is an X-ray device that meets the relevant standards.

5.1 Production, Packaging, and Storage

5.1.1 Products shall be produced, packaged, and stored in accordance with relevant national hygiene and production standards.

5.1.2 Packaging specifications shall meet the requirements of irradiation processing, and the packaging materials shall not cause secondary pollution to the product after irradiation.

5.1.3 The storage environment shall meet the temperature, humidity, light and ventilation requirements of the product.

5.2 Process Determination

5.2.1 Dosage distribution tests should be conducted based on the characteristics of spices and seasonings, such as type, packaging, and intended use, to determine the location of monitoring dosimeters.

5.2.2 The minimum effective dose and the maximum tolerated dose should be determined based on the type of spice and seasoning, the purpose of irradiation, and hygiene quality requirements. The radiation dose should be set between the lowest effective dose and the highest tolerable dose. It is preferable to choose a lower dose that meets the irradiation requirements, but with a lower average absorbed dose. It should not exceed 10 kGy.

5.2.3 The loading mode should be determined based on the packaging specifications of the spices and seasonings, the form of the irradiation device and irradiation container, and the loading mode should be... The product dosage non-uniformity should meet the process dosage requirements.

5.2.4 Equipment operating parameters should be set according to process dosage and loading mode.

5.2.5 Irradiation process documentation shall be developed, including but not limited to process dose, loading mode, equipment operating parameters, and dose measurement system. Systematically monitor the location of the dosimeter.

6 Irradiation process

6.1 Irradiation Operation Irradiation processing was organized according to the irradiation process documentation. The process included parameter setting, product loading and unloading, and dose monitoring. The irradiation was then monitored. The equipment, related parameters, and online product flow process are monitored and recorded.

6.2 Dose Monitoring According to the irradiation process documentation, monitoring dosimeters are deployed for measurement and recording. The dosimeter measurement system is selected according to GB/T 16640. Select and regularly trace back to the national absorbed dose standard.

6.3 Irradiation Interruption If the irradiation process is interrupted, the impact on the absorbed dose of the product should be assessed, and subsequent processing and recording should be carried out.

7 Spices and Seasonings

1.Scope This document specifies the irradiation equipment, pre-irradiation procedures, irradiation process, post-irradiation procedures, and document and record management for the irradiation processing of spices and seasonings. Require. This document applies to the irradiation sterilization of spices and seasonings for the purpose of controlling microorganisms.

7.2 Release

7.2.1 The irradiated product can only be released after confirming that the absorbed dose meets the process dose requirements and that there are no other abnormalities in the irradiation process.

7.2.2 When non-compliance with process dosage requirements or other non-conforming situations occur, they shall be handled in accordance with the non-conforming product management procedure.

8.Record and File Management All records and documents should be properly kept and retained for up to 6 months after their expiration date.