USDA United States Department of Agriculture
Foreign Agricultural Service

GAIN Global Agricultural Information Network

Voluntary Report – Voluntary - Public Distribution **Date:** July 20, 2023

Report Number: CH2023-0106

Report Name: China Issues Quality Standard for Nut and Seed Food

Country: China - People's Republic of

Post: Beijing

Report Category: Tree Nuts, FAIRS Subject Report, Agricultural Situation

Prepared By: FAS China Staff

Approved By: Alexandra Baych

Report Highlights:

The State Administration for Market Regulation issued the General Quality Standard for Nut and Seed Food, which will come into force on August 1, 2023. The national standard, which replaces the existing General Standard for Roasted Seed and Nuts (GB/T 22165-2008), provides terms and definitions, classification, technical requirements, inspection methods and rules, as well as labeling, packaging, transportation, and storage requirements for nut and seed products. This is a recommended standard that has not been notified to the WTO. However, a draft was published in November 2021 for domestic comments (see GAIN report CH2021-0142). This report contains an unofficial translation of the standard.

BEGIN UNOFFICAL TRANSLATION

National Standard of P.R. China

General Quality Standard for Nut and Seed Food

GB/T 22165-2023

In replacement of GB/T 22165-2008

Issued on July 11, 2022

Implemented on August 1, 2023

Issued by the State Administration for Market Regulation and the Standardization Administration of China

Preface

This document is drafted in accordance with GB/T 1.1-2020 Guidelines for Standardization Work Part I: Structure and Drafting Rules of Standardization Documents. This document replaces GB/T 22165-2008 General Standard for Roasted Seeds and Nuts. Compared with GB/T 22165-2008, the main technical changes, in addition to structural adjustments and editorial changes, are as follows:

a) The standard title has been revised to "General Quality Standard for Nut and Seed Food";
b) The terms and definitions of nuts and seeds have been changed (see 3.4, also 3.1 in the 2008 version);
c) Add the terms and definitions of nuts, seeds, kernels, spoiled kernels, damaged kernels, and empty withered seeds (see 3.1, 3.2, 3.3, 3.5, 3.6, 3.7);
d) Changes to the section on classification (see Chapter 4, also Chapter 4 of the 2008 version);
e) The sensory requirements have been changed (see 5.2, and also 5.2 of the 2008 version);
f) Change the physical and chemical requirements (see 5.3, also 5.3 of the 2008 version);
g) The hygienic indicators, food additives, and hygienic requirements for the production and processing processes have been deleted (see 5.4, 5.5, and 5.7 in the 2008 version);
h) The inspection method has been changed (see 6.1, 6.2, also 6.1, 6.2 of the 2008 version);
i) Delete the inspection methods of hygiene indicators (see 6.3 of the 2008 version);
j) Change the inspection rules (see 7.1, 7.2, 7.3, 7.4, also 7.1, 7.2, 7.3, 7.4 of the 2008 version);
k) Change the labeling, packaging, transportation, and storage requirements (see 8.1.1, 8.1.3, 8.2, 8.3, 8.4, also 8.1.1, 8.2, 8.3, 8.4 of the 2008 version).

Please note that some content of this document may involve patents. The issuing agency of this document is not responsible for identifying patents. This document was proposed and managed by China National Light Industry Council.

Drafting organizations of this document include China Food Industry Association, Qiaqia Food Co., Ltd., Zhejiang Dahaoda Food Co., Ltd., Three Squirrel Co., Ltd., Fujian Bailian Industrial Co., Ltd., Ningbo Hengkang Food Co., Ltd., Xianyang Rainbow Food Trading Co., Ltd. , Hangzhou Yaoshengji Food Co., Ltd., Sichuan Huiji Food Co., Ltd., California Natural Food (Bazhou) Co., Ltd., Liangpin Shop Co., Ltd., Shanghai Laiyifen Co., Ltd., and Qingdao Wolong Food Co., Ltd.

Drafters of this document: Weng Yangyang, Ma Liangping, Sun Mei, Wu Shunye, Wei Benqiang, Chen Juli, Chen Yinquan, Zhang Ani, Deng Yangyong, Lv Jingang, Chen Junxing, Yang Yinfen, Zhang Lihua, and Yang Guoqing.

The publication history of this document and its replaced versions is as follows:

-GB/T22165-2008 was first published in 2008;

-This is the first revision.

General Quality Standard for Nut and Seed Food

1. Scope

This document defines the terms and definitions of nuts and seeds (hereinafter referred to as products), and specifies the classification, technical requirements, test methods, inspection rules, labeling, packaging, transportation, and storage requirements.

This document is applicable to the production, sales and inspection of nuts and seeds.

2. Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, for dated reference documents, only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 191 Illustrations on Packaging, Storage, and Transportation

GB 5009.3 National Food Safety Standard on Determination of Moisture in Food

JJF 1070 Inspection and Measuring Rules on Net Content of Quantitatively Packaged Goods

3. Terms and definitions

The following terms and definitions apply to this document.

3.1 Nuts

Edible part of woody plant seeds with a hard outer shell.

Note 1: Including walnuts, chestnuts, apricot kernels/seeds, almonds, hickory nut (including pecans), pistachios, Chinese torreya, macadamia nuts, pine nuts, hazelnuts, dried coconuts, etc.

Note 2: Dried coconut generally refers to the dried coconut pulp after being cut into slices, strips, blocks, and diced shapes.

3.2 Seeds

Edible part of plant seeds such as melons, fruits, vegetables, and oilseeds.

Note: Including sunflower seeds, watermelon seeds, pumpkin seeds, peanuts, broad beans, peas, soybeans, corn, sesame, chia seeds, flax seeds, etc.

3.3 Kernel

Parts after the shells of nuts and seeds have been removed.

3.4 Nut and seed food

Food processed with nuts, seeds, or their kernels as main raw materials.

3.5 Spoiled kernel

Kernels with mildew, insect erosion, rot, oil on cross-section and producing bad smell that have affected the edible value.

3.6 Injured kernel

Nuts and seeds with worm holes on the surface that damage the kernels.

3.7 Empty withered seed

Empty shells (including broken shells) without kernels or nuts and seeds with deflated kernels

Note: For almonds, walnuts, and pecans, deflated kernels refer to shrunken kernels with its mass ratio of the whole fruit being less than 30 percent; for other varieties, deflated kernels refer to shrunken kernels whose length is less than one-third of a complete kernel.

4. Classification

4.1 Based on different processing methods, they are classified into roasted nut and seed food (roasted product), fried nut and seed food (fried product), and other nut and seed food (other product).

a) Roasted product: Food that uses nuts, seeds, or their kernels as main raw materials and is cooked through stir-frying or roasting (including roasting after steaming) with or without adding auxiliary materials.

b) Fried product: Food that uses nuts, seeds, or their kernels as main raw materials and is cooked through deep-frying with or without adding auxiliary materials.

c) Other product: Food using nuts, seeds or their kernels as the main raw materials and is cooked with boiling or other processes with or without adding auxiliary materials, such as consumer-ready raw nut and seed food (consumer-ready raw product), mixed nut and seed food (mixed product), etc.

Note 1: Consumer-ready raw nut and seed food refers to nut and seed food that uses nuts, seeds or their kernels as main raw materials and is ready for direct consumption after cleaning, screening, shelling, drying, and sterilization without cooking process. It does not include varieties that are not suitable for processing into ready-to-eat raw nuts and seeds, such as Gingko nuts, apricot kernel, flaxseed, etc.

Note 2: Mixed nut and seed food refers to a product made by quantitative and physical mixing of two or more nuts and seeds (as main raw materials) with or without addition of non-nut and seed food, of which mixed shelled nuts and seeds are also called assorted nuts.

Note 3: For products with two or more processing techniques, qualitative classification shall be determined on the last cooking process.

4.2 Based on whether the shells are removed, they are classified into inshell nut and seed food category (inshell product) and shelled nut and seed food category (shelled product).

5. Technical requirements

5.1 Requirements for raw and auxiliary materials

Shall comply with the requirements of the corresponding national standards and industry standards.

5.2 Sensory requirements

Sensory requirements shall comply with the provisions of Table 1.

Table 1 Sensory requirement

Item	Requirement	
	Inshell	Shelled
Color	Has the color and luster native to this variety	
Particle morphology	Has the particle shape native to this variety	
Taste, smell	The taste and smell are pure with no peculiar smell such as rancidity	
Impurity	No visible foreign matters under normal vision	
Spoiled kernel (%) Pakistan arborescens pine nuts Walnut, hickory nut, macadamia nut, Korean pine nut in northeast China, almond, apricot seed, other	≤ 7.5 ≤ 5.0 ≤ 3.0	≤ 2.0
Damaged kernel (%) Almond, beans Other	≤ 3.0 ≤ 2.0	≤ 2.0 ≤ 1.0
Empty kernel[a] (%) Pecan, walnut, almond, apricot seed, Chinese torreya, sunflower seed, macadamia nut, watermelon seed Other	≤ 3.0 ≤ 2.0 ≤ 1.0	___
[a] Note: Empty kernel requirements for hand-peeled hickory nut products are not set.		

5.3 Physical and chemical index

Physical and chemical indexes shall comply with the provisions of Table 2.

Table 2 Physical and Chemical Index

Item	Index				
	Roasted product	Fried product	Other product		
			Mixed product	Consumer-ready raw product	Other
Moisture (g/100g)	≤ 13.5 (watermelon seed) ≤ 5 (other)	≤ 5	≤ 15	≤ 16 (pine nut) ≤ 6 (other nuts) ≤ 14 (beans) ≤ 12 (other seeds)	—
Nut and seed kernel content (g/100g)	—	—	≥ 40	—	—

5.4 Requirements for net content

For requirements of net content for pre-packaged food, refer to Measures of Supervision and Administration on the Measurement of Pre-packaged Commodity.

6. Testing method

6.1 Sensory requirements

6.1.1 Color, particle morphology, taste and smell, impurity

Take appropriate amount of sample, place the sample in a clean, dry white porcelain dish, observe the color, particle shape, and impurities under natural light, and make an evaluation after smelling and tasting the sample.

6.1.2 Injured kernels and spoiled kernels

Inspection of injured kernel indexes: take a sample of 200-300 intact particles and count the number of particles. Inshell products should be shelled for inspection. Pick out the injured kernels and count the number of particles. The ratio (of injured kernels) to the total number of sampled particles is measured as a percentage.

Inspection of spoiled kernel indexes: take a sample for inspection of spoiled kernels, pick out the eligible spoiled kernels (for kernels with oil leakage, cut the section of oily kernels for inspection and verification), and count the number of total spoiled kernels. The ratio (of spoiled kernels) to the total number of sampled particles is measured as a percentage.

Note: Coated products should be inspected after removing the coating.

6.1.3 Empty withered seeds

Take an inshell sample of more than 500 grams, pick out the empty withered seeds and weigh their mass, and measure the ratio of the mass of empty withered seeds to the mass of total sample as a percentage.

6.2 Physical and chemical index

6.2.1 Moisture

Measured in accordance with the methods specified in GB5009.3.

6.2.2 Kernel content of nuts and seeds

Take more than 500 grams of mixed nut and seed food and weigh their mass, pick out kernels of nuts and seeds and weigh their mass, and measure the ratio of the mass of nut and seed kernels to the total sample mass as a percentage.

6.3 Determination of net content

Implemented in accordance with provisions specified in JJF1070.

7. Inspection rules

7.1 Factory inspection

Factory inspection items include sensory requirements and net content indexes.

7.2 Routine inspection

Routine inspection items include all indicator items in provisions 5.2-5.4. Under normal circumstances, the routine inspection occurs twice a year. In the event of the following situations, a routine inspection shall be implemented.

a) Major changes in raw materials or processing technique
b) Prior to production assessment
c) Re-production after discontinued production for more than 6 months
d) Required by national regulatory authority

7.3 Inspection group/batch and sampling

The same variety produced during the same shift or with the same batch of raw materials is considered an inspection batch. More than 500 grams and more than 200 particles of products should be randomly selected from different parts of each batch.

For products of the same variety but in different packages, the inspection items that are not affected by the packaging specifications and packaging forms can be implemented together.

7.4 Judgement rules

7.4.1 Judgment rules on factory inspection

If all factory inspection items conform to this document, the batch is determined to comply with this document. If there are unqualified items in the factor inspection, it can be sampled and re-inspected. If they are still unqualified in the re-inspection, the batch is determined not to comply with this document.

7.4.2 Judgement rules on routine inspection

If all routine inspection items comply with this document, it is determined that the routine inspection complies with this document. If there are unqualified items in routine inspection, it can be sampled and re-inspected. If items are still unqualified in the re-inspection, the routine inspection is determined not to comply with this document.

8. Labels, signs, packaging, transportation, and storage

8.1 Labels and signs

8.1.1 The label of the product that is sold by weighing may not indicate the net content.

8.1.2 The signs for storage and transportation shall comply with the provisions specified in GB/T 191.

8.1.3 The label should indicate the classification name specified in Article 4.1.

8.2 Packaging

8.2.1 The packaging materials should be clean, non-toxic, and odorless, and comply with corresponding standards and relevant requirements.

8.2.2 All packaging should be complete and undamaged.

8.2.3 The packaging can be in two forms: quantitative packages or weighed bulk product put in sales packages. Sales of product can be weighed or in other forms.

8.3 Transportation

8.3.1 Transportation tools should be clean, dry, odor-free, and contamination-free.

8.3.2 Attention should be paid to prevent moisture, sun, and rain during transportation. Products should not be transported together with toxic, harmful, peculiar smell articles or items that affect the quality of the product.

8.3.3 Products should be handled with care and avoid improper actions such as throwing, falling, or kicking during loading and uploading.

8.4 Storage

8.4.1 Products should be stored in a clean, ventilated, dry, cool, fly-proof, and rodent-proof warehouses and should not be mixed with toxic, harmful, odorous, corrosive, and damp articles.

8.4.2 Products should be stacked on the board 10 cm above ground and 20 cm away from wall with a passageway in the middle. The stacking height should be restricted to the extent that will not cause collapse or damages to the outer packaging of the product.

8.4.3 Consumer-ready raw nut and seed food should be stored in refrigerated warehouses.

References:

1) Measures of Supervision and Administration on the Measurement of Pre-packaged Commodity (AQSIQ Decree No. 75 (2005))

END UNOFFICAL TRANSLATION

Attachments:

No Attachments.