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Report Name: Revised Draft Cereals Seed Standards Published for Comment

Country: China - People's Republic of

Post: Beijing

Report Category: Planting Seeds, Biotechnology and Other New Production Technologies, Biotechnology - Plants and Animals, Grain and Feed, Trade Policy Monitoring

Prepared By: FAS China Staff

Approved By: Adam Branson

Report Highlights:

On January 4, 2024, the Ministry of Agriculture and Rural Affairs (MARA) published the revised "National Standard for Seed of Food Crops – Part 1: Cereals (Draft for Comments)." The new draft incorporates quality requirements for genetically modified (GM) corn varieties with herbicide tolerance and insect resistance and modified quality indicators for hybrid rice seeds and conventional corn, wheat, and sorghum seeds. The deadline for submitting public comments on the revised draft is March 5, 2024. The draft standard was not notified to the WTO. This report provides an unofficial translation of the draft standard.

Summary

On January 4, 2024 MARA published the revised National Standards for Seed of Food Crops-Part 1: Cereals (Draft for Comments) (link in Chinese). The mandatory national standards and test methods apply to cereal seeds including rice, corn, wheat, barley, buckwheat, oats, sorghum, and millet that are produced and sold in the People's Republic of China, including both coated seeds and uncoated seeds. Once finalized, this Standard will replace GB4404.1-2008 Seed of Food Crops - Part 1: Cereals, GB4404.3-2010 Seed of Food Crops - Part 3: Buckwheat and GB4404.4-2010 Seed of Food Crops - Part 4: Oats (links in Chinese).

Significant changes in the draft measures include:

1. Definitions of terms related to the variety and purity of GM corn varieties and added quality requirements for GM corn varieties with herbicide tolerance and insect resistance;
2. Modified quality indicators for rice seeds;
3. Modified quality indicators for conventional corn, wheat, and sorghum seeds;
4. Added quality indicators for genetic purity, physical purity, moisture, and germination rate of millet hybrid seed;

Comments can be provided via email to: jinfang@agri.gov.cn or via fax to: (86 10) 59194511.

This report provides an UNOFFICIAL translation of the revised standard. Post has added current standard levels in the text, marked in RED, for comparison purposes.

This revised standard has not been notified to the WTO as of January 9, 2024.

BEGIN UNOFFICIAL TRANSLATION

ICS 65.020.20
CCS B 22

National Standards of People's Republic of China

GB 4404.1—XXXX
Replace GB 4404.1-2008 GB4404.3-2010、GB4404.4-2010

Seed of Food Crops——Part 1：Cereals

（Draft for Comments）

November 23, 2023

Issued on XXXX-XX-XX (date)　　Implemented on XXXX-XX-XX (date)

Released by the State Administration for Market Regulation and China’s National Standardization Administration Committee

Foreword

This document is drafted in accordance with the provisions of GB/T1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

All technical contents of this part of GB 4404 are mandatory.

GB 4404 " Seed of Food Crops" is divided into the following parts:

- Part 1: Cereals;
- Part 2: Beans;

This document is the first part of GB4404. It is a combined revision of GB 4404.1-2008 and its amendment, GB4404.3-2010 and GB4404.4-2010 based on the relevant provisions of the "Seed Law of the People's Republic of China" and the new development situation of the seed industry. It will replace GB 4404.1-2008, GB4404.3-2010, and GB4404.4-2010.

Compared with GB 4404.1-2008 and its amendment, GB4404.3-2010, and GB4404.4-2010, the main changes in this document are as follows:

- Added the definitions of terms of genetically modified GM of variety genuine and genetically modified of variety purity;

- Modified the quality indicators of genetic purity of hybrids rice seeds, the physical purity of conventional and hybrid seeds, the germination rate of hybrid rice seeds, and the moisture indicators for seeds in north of the Great Wall and in alpine areas, and clarified implementation regulations for moisture quality of indica and japonica hybrid rice;

- Modified the quality indicators for germination rate of maize conventional seeds and single crosses (qualified seeds) (not single kernel planting), the moisture indicators for seeds in north of the Great Wall and in alpine areas, and added requirements for genetically modified of variety genuine, and purity requirements for genetically modified varieties with herbicide tolerance and insect resistance;

- Modified the quality indicator for germination rate of wheat conventional seeds;

- Modified the seed moisture quality indicators for sorghum seeds in north of the Great Wall and in alpine areas;

- Added quality indicators for genetic purity, physical purity, moisture and germination rate of millet hybrid seed;

- Modified test method.

This document is proposed by the Ministry of Agriculture and Rural Affairs of the People's Republic of China.

This document is under the jurisdiction of the National Crop Seed Standardization Technical Committee (SAC/TC37).

The main drafting units of this document are: National Agricultural Technology Extension Service Center, Heilongjiang Provincial Seed Industry Technical Service Center, Hunan Provincial Seed Quality Testing Center, Hubei Provincial Seed Administration Bureau, Jiangsu Academy of Agricultural Sciences, Guangxi Zhuang Autonomous Region Seed Management Station, Gansu Provincial Seed Station, Beijing Academy of Agriculture and Forestry Sciences, Jilin Provincial Seed Management Station, Shanghai Agricultural Technology Extension Service Center, Jiangsu Provincial Seed Management Station, Tianjin Agricultural Technology Industry Development Service Center.

The previous versions of the standard replaced by this document are as follows:
——GB4404-1984, GB4405-1984;
GB 4404.1—2008
——GB4404.1-1996;
——GB4404.1-2008, GB4404.3-2010, GB4404.4-2010.

Seed of Food Crops——Part 1：Cereals

1. Scope

This part of GB 4404 specifies quality requirements, inspection methods and inspection rules for rice (Oryza sativa), corn (Zea mays), wheat (Triticum aestivum), barley (Hordeum vulgare), Tartary buckwheat (Fagopyrum tataricum(L.)Gaertn), common buckwheat (Fagopyrum esculentum Moench) , oats (Avena sativa L.), sorghum (Sorghum bicolor), millet (Setaris italica) and millet[1] (Panicum miliaceum).

This document applies to the above-mentioned cereal crop seeds produced and sold in the People's Republic of China, including both coated seeds and uncoated seeds.

[1]There are many millet species, Setaris italica and Panicum miliaceum are two of them. Please refer to https://en.wikipedia.org/wiki/Millet

2. Normative reference documents

The provisions in the following documents constitute indispensable provisions of this document through normative references in the text. For referenced documents with date, only the version corresponding to that date is applicable to this document; for referenced documents without date, the latest version (including all amendments) is applicable to this document.

GB/T 3543 (all parts) Crop Seed Inspection Procedures
GB 20464 General Rules for Crop Seed Labeling

3. Terms and Definitions

The following terms and definitions apply to this part of GB4404.

3.1 Basic seed
Seeds from the first to third generation propagated from breeder's seed and confirmed to meet the specified quality requirements.

3.2 Qualified seeds
Seeds from the first to third generation or hybrids propagated from basic seeds and confirmed to meet the specified quality requirements.

3.3 Single cross
The first generation of hybrid seeds from two inbred lines.

3.4 Double cross
The first generation of hybrid seeds from two single crosses.

3.5 Three-way cross
The first generation of hybrid seeds from an inbred line and a single cross.

3.6 Single kernel planting seed
Seeds whose net seed content is labeled by the number of kernels for the purpose of single kernel planting.

3.7 Genetically modified of variety genuineness.
GB 4404.1—2008
Event authenticity, containing and only containing labeled events.

3.8 Genetically modified variety purity
The percentage of the samples containing and only containing the target traits of labeled events in the samples tested. Events with different traits must be indicated separately.

4. Quality requirements

4.1 General

Seed quality requirements consist of quality indicators and quality labeling values. Quality indicators include variety genetic purity, physical purity, germination rate, moisture, and genetically modified variety purity; the quality label value should be authentic and comply with the quality requirements of this part (see 4.2).

4.2 Quality requirements

4.2.1 Rice

The quality of rice seed shall conform to the requirements of Table 1.

Table 1 Rice Seed Quality Requirements %

Crop	Type of Seeds		Variety genetic purity not lower than	Physical purity not lower than	germination rate not lower than	Moisture not higher than
Rice	Conventional Seeds	Basic seed	99.9	99.0/98.0[2]	85	13.0(indica)
		Quality Seed	99.0			14.5(Japonica)
	Sterile line, restorer line, maintainer line	Basic seed	99.9	98.0	80	13.0
		Quality Seed	99.5			
	Hybrids	Quality Seed	97.0/96.0	99.0/98.0	82/80	13 (indica)
						14/14.5 (Japonica)

Note: 1. The moisture content of seeds sold in north of the Great Wall and in alpine areas is allowed to be higher than 13.0% (indica) and 14.5% (japonica), but should not be higher than 15.0%/16.0%. If sold in south of the Great Wall (except alpine areas), the moisture content cannot be higher than 13.0%.

2. The quality indicators of rice hybrids are applicable to three-line and two-line rice hybrid seeds.

3. For indica-japonica hybrid rice seeds, if the female parent (sterile line) is japonica rice, the moisture quality requirements for japonica rice seeds shall be followed. If the female parent (sterile line) is indica rice, the moisture quality requirements for indica rice seeds shall be followed.

4.2.2 Corn

4.2.2.1 The quality of corn seed shall conform to the requirements of Table 2.

2 The current standard for physical purity is 98%.

Table 2 Corn Seed Quality Requirements %

Crop	Type of Seeds		Variety genetic purity not lower than	Physical purity not lower than	germination rate not lower than	Moisture not higher than
Corn	Conventional Seeds	Basic seed	99.9	99.0	88/85	13.0
		Quality Seed	97.0			
	Inbred	Basic seed	99.9	99.0	80	
		Quality Seed	99.0			
	Single Cross	Quality Seed (not for single kernel planting)	96.0	99.0	88/85	
		Quality Seed (single kernel planting)	97.0		93	
	Double Cross	Quality Seed	95.0	99.0	85	
	Three-way Cross	Quality Seed	95.0			
Note: The moisture content of seeds sold in north of the Great Wall and in alpine areas(except for single kernel plating seeds) is allowed to be higher than 13.0%, but should not be higher than 15.0%.						

4.2.2.2 The quality of GM corn seed shall also conform to the requirements of Table 3.

Table 3 GM Corn Seed Quality Requirements %

Crop	Genetically modified of variety genuiness	Genetically modified variety purity	
		Herbicide tolerant trait purity not lower than	Insect resistance trait purity not lower than
Corn	Containing and only containing labelled events	98.0	95.0
Note: For GM corn seeds, the quality seed of single cross shall follow the requirements for single kernel plating.			

4.2.3 Wheat and Barley

The quality of wheat and barley seed shall conform to the requirements of Table 4.

Table 4 Wheat and Barly Seed Quality Requirements %

Crop	Type of Seeds		Variety genetic purity not lower than	Physical purity not lower than	Germination rate not lower than	Moisture not higher than
Wheat	Conventional Seeds	Basic seed	99.9	99.0	86/85	13.0
		Quality Seed	99.0			
Barley	Conventional Seeds	Basic seed	99.9	99.0	85	13.0
		Quality Seed	99.0			

4.2.4 Buckwheat

The quality of buckwheat seed shall conform to the requirements of Table 5.

Table 5 Buckwheat Seed Quality Requirements %

Crop	Type of Seeds	Variety genetic purity not lower than	Physical purity not lower than	Germination rate not lower than	Moisture not higher than
Tartary buckwheat	Basic seed	99.0	98.0	85	13.5
	Quality Seed	96.0			
Common buckwheat	Basic seed	95.0	98.0	85	13.5
	Quality Seed	90.0			

4.2.5 Oat

The quality of oat seed shall conform to the requirements of Table 6.

Table 6 Oat Seed Quality Requirements %

Crop	Type of Seeds	Variety genetic purity not lower than	Physical purity not lower than	Germination rate not lower than	Moisture not higher than
Oat	Basic seed	99.0	98.0	85	13.0
	Quality Seed	97.0			

4.2.6 Sorghum

The quality of sorghum seed shall conform to the requirements of Table 7.

Table 7 Rice Seed Quality Requirements %

Crop	Type of Seeds		Variety genetic purity not lower than	Physical purity not lower than	Germination rate not lower than	Moisture not higher than
Sorghum	Conventional Seeds	Basic seed	99.9	98.0	75	13.0
		Quality Seed	98.0			
	Sterile line, restorer line, maintainer line	Basic seed	99.9	98.0	75	13.0
		Quality Seed	99.0			
	Hybrids	Quality Seed	93.0	98.0	80	13.0
Note: The moisture content of seeds sold in north of the Great Wall and in alpine areas is allowed to be higher than 13.0%, but should not be higher than 15.0%.						

4.2.7 Millet (Setaris italica) and millet (Panicum miliaceum)

The quality of millet (Setaris italica) and millet (Panicum miliaceum) seed shall conform to the requirements of Table 8.

Table 8 Millet (Setaris italica) and Millet (Panicum miliaceum) Seed Quality Requirements %

Crop	Type of Seeds		Variety genetic purity not lower than	Physical purity not lower than	Germination rate not lower than	Moisture not higher than
Millet (Setaris italica) and	Conventional Seeds	Basic seed	99.8	98.0	85	13.0
		Quality Seed	98.0			
	Hybrids	Quality Seed	96.0			
Millet (Panicum miliaceum)	Conventional Seeds	Basic seed	99.8	98.0	85	13.0
		Quality Seed	98.0			
Note: 1. In agricultural production, millet (Setaris italica) is commonly known as “Guzi”, and millet (Panicum miliaceum)is commonly known as “Meizi”. 2. If the male sterile two-line method is used to produce millet (Setaris italica) hybrids, without special herbicide treatment, the variety generic purity will not implement the above quality requirements; if it is treated with special herbicides, the germination rate will not meet the above quality requirements.						

2. In the case of millet (Setaris italica) hybrids produced by the two-line method using male sterile lines, the variety generic purity is not subject to above quality requirements if they have not been treated with specialized herbicides, and the germination rate is not subject to the above quality requirements if they have been treated with specialized herbicides.

5 Inspection methods

The inspection method shall be implemented in accordance with the provisions of GB/T 3543. If there is no provision in GB/T 3543, the test method specified by the Ministry of Agriculture and Rural Affairs shall be implemented.

6 Test rules

6.1 Sampling

The sampling method and seed batch determination shall comply with the provisions of GB/T 3543.

6.2 Judgement rules
The quality judgment rules should comply with the provisions of GB 20464.

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Attachments:

No Attachments.