

Technical Inputs



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GB1350-2009

Paddy

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National Standard of People's Republic of China

GB1350-2009

Replaces GB 1350--1999

Paddy

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Foreword

All provisions in the standard are mandatory.

This national standard will replace Standard GB1350-1999 from the implementation date of this standard.

The main technical modifications in this standard compared with GB1350-1999 are as follows:

- modification of certain terms and definitions;
- change of head rice yield from stationary indicators to non-stationary indicators; change of indicator value;
- adding Grade for Paddy that cannot meet all indicators designed for grade 1-5.
- adding substandard grade;
- adding provisions of label marks

The standard is proposed by State Administration of Grain.

The standard is under jurisdiction of the National Technical Committee for Standardization of Grain and Oil.

The main organizations that participated in the drafting of this standard are: State Grain Bureau of Standards Quality Center, Hubei Grain Bureau of Jiangsu Provincial Food Bureau, Chengdu Grain Storage Research Institute, China Grain Reserves Corporation, China National Rice Research Institute, Hunan Rice Research Institute, Henan University, Jiangxi Food Authority Nishikawa provincial grain Bureau, Hunan Provincial grain Bureau, the Guangdong provincial Food Bureau, Heilongjiang grain Bureau, Yunnan grain Bureau, Ministry of rice COFCO, COFCO Wuhan Research and Design Institute, Wuhan Polytechnic University, Ningxia Hui Autonomous Region grain Bureau, Liaoning provincial Food Bureau, Jilin grain Bureau, Guangxi Zhuang Autonomous Region grain Bureau

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This standard replaces the previous versions of the following standards:

- GB1350-1978
- GB1350-1986
- GB1350-1999

Paddy

1. Scope

The standard specifies terms and definitions of paddy, category, quality and safety requirements, testing methods, testing rules and requirements on packing, labels, storage and transportation.

The standard is applicable to merchant paddy which is to be purchased, stored, delivered and sold.

The standard is not applicable to any special type of paddy excluded from the category stipulated in this standard.

2. Normative References

The following standards contain provisions which, referred by this standard, constitute provisions of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. However, it is encouraged for each party entering agreement according to this standard to decide whether to use the latest versions of these documents. In addition, the latest versions of all reference documents without dates are applicable to the standard.

- GB 1354:Rice
- GB 2715:Hygienic standard for grains
- GB/T 5490: Inspection of grain, oilseeds and vegetable oils-General rules
- GB 5491:Inspection of grain and oilseeds; Methods for sampling and sample reduction
- GB/T 5492:Inspection of grain and oils-identification of color, odor and taste of grain and oilseeds
- GB/T 5493:Inspection of grain and oils-Determination of type purity and their mixture
- GB/T 5494-2008:Inspection of grain and oils- Determination of foreign matter and unsound kernels of grain and oilseeds
- GB/T 5495:Inspection of grain and oils-Determination of husked rice yield from paddy
- GB/T 5496:Inspection of grain and oilseeds; Methods for determination of yellow-colored rice and cracked kernels
- GB/T 5497:Inspection of grain and oilseeds; Methods for determination moisture content of grain and oilseeds
- GB 13078:Hygienic standard for feeds
- GB/T 21719: Determination of head rice yield from paddy

3. Terms and Definitions

The following terms and definitions are applicable to this Standard.

3.1 Early Long-Grain Non-Glutinous Paddy

Indica with short growing period and early harvest time, whose rice possesses large white belly and a few cutins

3.2 Late Long-Grain Non-Glutinous Paddy

Indica with long growing period and late harvest time, whose rice possesses small or no white belly and many cutins

3.3 Medium to Short-Grain Non-Glutinous Paddy

Fruit of non-glutinous rice which is oval-shaped, stickier and has little expansibility

3.4 Long-Grain Glutinous Paddy

Fruit of long-grain glutinous paddy. The husked rice is generally oval and elongated. The rice is milky white, opaque, translucent and viscous

3.5 Round-Grain Glutinous Paddy

Fruit of round-grain glutinous paddy. The husked rice is generally oval, milky white, opaque, translucent and much viscous

3.6 Clean Paddy

Paddy without foreign matter and husked rice

3.7 Husked Rice Yield

Mass fraction of husked rice to the sample in which unsound kernels are calculated by half

3.8 Head Rice

Husked rice processed to meet the requirement of Grade-3 rice specified in GB 1354, with its length exceeds 75% of the average length of sample rice

3.9 Head Rice Yield

Proportion of head rice in sample clean paddy

3.10 Unsound Kernel

Immature or damaged yet valuable rice kernel including immature kernel, injured kernel, spotted kernel, sprouted kernel and moldy kernel

3.10.1 Immature Kernel

Immature seeds which is not full and the appearance is floured kernel

3.10.2 Injured Kernel

Kernels of which the embryo or endosperm which is eaten by insects

3.10.3 Spotted Kernel

Kernel of which embryo or endosperm is spotted

3.10.4 Sprouted Kernel

Kernels of which buds or young roots have grown out of rice husk, or buds or young roots have exceeded out of the skin of husked rice

3.10.5 Moldy Kernel

Kernels of husked rice whose surface is moldy

3.11 Husked Rice in Paddy

Husked rice mixed in paddy.

3.12 Other Kind of Paddy

Paddy which is mixed with other kind of paddy

3.13 Foreign Matter

Other matter which includes throughs, inorganic impurity and organic impurity

3.13.1 Throughs

Substance which can pass through the sieve with a 2.0mm diameter

3.13.2 Inorganic Impurity

Dirt, gravel, brick block and other inorganic substances

3.13.3 Organic Impurity

Useless rice kernel, food grains and other dissimilar organic substances

3.14 Yellow-Colored Rice

Kernel whose endosperm is yellow and its color is distinct from normal kernel

3.15 Colour and Odour

Color, gloss and odor of a certain number of paddies

4. Classification

Paddy in this standard is divided into five types: early long-grain non-glutinous paddy, late long-grain non-glutinous paddy, medium to short-grain non-glutinous paddy, long-grain glutinous paddy and round-grain glutinous paddy.

5. Quality and Sanity Requirements

5.1 Quality Requirements

5.1.1 Husked rice yield of each type of paddy is the given indicators for grading; Grade 3 refers to medium quality.

5.1.2 The quality indicators for early long-grain non-glutinous paddy, late long-grain non-glutinous paddy and long-grain glutinous paddy see Table 1.

Table 1 Quality Indicators of Early Long-Grain Non-glutinous Paddy, Late Long-Grain Non-glutinous Paddy and Long-Grain Glutinous Paddy

Grade	Husked rice yield/%	Head rice yield/%	Impurity rate/%	Water content rate/%	Yellow-colored rice rate/%	Rate of husked rice in paddy/%	Mixed rate /	Color and odor
1	≥79.0	≥50.0	≤1.0	≤13.5	≤1.0	≤2.0	≤5.0	Normal
2	≥77.0	≥47.0						
3	≥75.0	≥44.0						
4	≥73.0	≥41.0						
5	≥71.0	≥38.0						
Below the Grade	< 71.0	—						

Remark: “—” refers to no requirement

5.1.3 The quality indicators of medium to short-grain Non-glutinous paddy and round-grain glutinous paddy see Table 2.

Table 2 Quality Indicators of Medium to Short-Grain Non-glutinous Paddy and Round-Rain Glutinous Paddy

Grade	Husked rice yield /%	Head rice yield /%	Impurity rate /%	Water content rate /%	Yellow-colored rice rate /%	Rate of husked rice in paddy/ %	Mixed rate /%	Color and odor
1	≥81.0	≥61.0						
2	≥79.0	≥58.0						

3	≥77.0	≥55.0	≤1.0	≤14.5	≤1.0	≤2.0	≤5.0	normal
4	≥75.0	≥52.0						
5	≥73.0	≥49.0						
Below the Grade	<73.0	—						
Remark: “—” refers to no requirement								

5.2 Hygiene Requirements

5.2.1 The hygiene requirement for edible paddy shall comply with GB2715 and relevant provisions.

5.2.2 The hygiene requirement for paddy for feedstuffs shall comply with GB2715 and relevant provisions. .

5.2.3 The hygiene requirement for paddy of other uses shall comply with relevant national standards and provisions.

5.2.4 The hygiene requirement for phytosanitary shall comply with national standards and provisions.

6. Testing methods

6.1 Sampling and sample reduction: Apply methods specified in GB 5491.

6.2 Color, smell test: Apply methods specified in GB/T5492.

6.3 Types and other kind of paddy test: Apply methods specified in GB / T 5493.

6.4 Impurities, unsound kernel test: Apply methods specified in GB / T 5494.

6.5 Husked rice yield test: Apply methods specified in GB / T 5495.

6.6 Yellow-colored rice test: Apply methods specified in GB / T 5496.

6.7 Moisture test: Apply methods specified in GB / T 5497.

6.8 Husked rice in paddy test: Apply methods specified in 6.1.3 of GB / T 5494-2008, selecting out husked rice kernel and weighting.

6.9 Head rice yield test: Apply methods specified in GB / T 21719.

7. Testing Rules

7.1 General rules for testing mainly refer to GB / T 5490.

7.2 Testing batches are paddies of the same type, origin, harvest year, transport unit and storage unit.

7.3 Rules for determination: Husked rice yield shall comply with requirements for targeted grade specified in Table 1 and Table 2. Other indicators shall comply with national provisions.

8. Label

The product name, category, grade, origin, harvest year and month shall be marked on the packaging or accompanying documents.

9. Packaging, Storage and Transportation

9.1 Packaging

Packaging of paddy should be clean, firm, free from damage or spill, and sealed tightly. It should

not produce pollution and abnormal smell.

9.2 Storage

Paddy shall be stored in a clean, dry warehouse with no abnormal smell and can prevent from raining, moisture, moth and rat and should not be stored with toxic and hazardous substances or substances with much water.

9.3 Transportation

Vehicle and container for transportation should meet sanitary requirements and paddy during transportation should be protected from raining and pollution.

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