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Inspection  
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# United States Standards for Rice

# **UNITED STATES STANDARDS FOR RICE**

United States Department of Agriculture  
Grain Inspection, Packers and Stockyards Administration  
Federal Grain Inspection Service  
1400 Independence Avenue, S.W.  
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# UNITED STATES STANDARDS FOR ROUGH RICE<sup>1</sup>

Effective December 1, 2002

## TERMS DEFINED

### **§868.201 Definition of rough rice.**

Rice (*Oryza sativa* L.) which consists of 50 percent or more of paddy kernels (see §868.202(i)) of rice.

### **§868.202 Definition of other terms.**

For the purposes of these standards, the following terms shall have the meanings stated below:

- (a) Broken kernels. Kernels of rice which are less than three-fourths of whole kernels.
- (b) Chalky kernels. Whole or large broken kernels of rice which are one-half or more chalky.
- (c) Classes. The following four classes:

- Long Grain Rough Rice
- Medium Grain Rough Rice
- Short Grain Rough Rice
- Mixed Rough Rice

Classes shall be based on the percentage of whole kernels, large broken kernels, and types of rice.

- (1) "Long grain rough rice" shall consist of rough rice which contains more than 25 percent of whole kernels and which after milling to a well-milled degree, contains not more than 10 percent of whole or broken kernels of medium or short grain rice.
- (2) "Medium grain rough rice" shall consist of rough rice which contains more than 25 percent of whole kernels and which after milling to a well-milled degree, contains not more than 10 percent of whole or large broken kernels of long grain rice or whole kernels of short grain rice.
- (3) "Short grain rough rice" shall consist of rough rice which contains more than 25 percent of whole kernels and which, after milling to a well-milled degree, contains not more than 10 percent of whole or large broken kernels of long grain rice or whole kernels of medium grain rice.

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<sup>1</sup>*Compliance with the provisions of these standards does not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or other Federal laws. Source: 42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, unless otherwise noted.*

(4) "Mixed rough rice" shall consist of rough rice which contains more than 25 percent of whole kernels and which, after milling to a well-milled degree, contains more than 10 percent of "other types" as defined in paragraph (h) of this section.

(d) Damaged kernels. Whole or broken kernels of rice which are distinctly discolored or damaged by water, insects, heat, or any other means, and whole or large broken kernels of parboiled rice in non-parboiled rice. "Heat-damaged kernels" (see paragraph (e) of this section) shall not function as damaged kernels.

(e) Heat-damaged kernels. Whole or large broken kernels of rice which are materially discolored and damaged as a result of heating, and whole or large broken kernels of parboiled rice in nonparboiled rice which are as dark as, or darker in color than, the interpretive line for heat-damaged kernels.

(f) Milling yield. An estimate of the quantity of whole kernels and total milled rice (whole and broken kernels combined) that are produced in the milling of rough rice to a well-milled degree.

(g) Objectionable seeds. Seeds other than rice, except seeds of *Echinochloa crusgalli* (commonly known as barnyard grass, watergrass, and Japanese millet).

(h) Other types. (1) Whole kernels of: (i) Long grain rice in medium or short grain rice, (ii) medium grain rice in long or short grain rice, (iii) short grain rice in long or medium grain rice, and

(2) Large broken kernels of long grain rice in medium or short grain rice and large broken kernels of medium or short grain rice in long grain rice.

*Note: Broken kernels of medium grain rice in short grain rice and large broken kernels of short grain rice in medium grain rice shall not be considered other types.*

(i) Paddy kernels. Whole or broken unhulled kernels of rice.

(j) Red rice. Whole or large broken kernels of rice on which there is an appreciable amount of red bran.

(k) Seeds. Whole or broken seeds of any plant other than rice.

(l) Smutty kernels. Whole or broken kernels of rice which are distinctly infected by smut.

(m) Types of rice. The following three types:

Long grain  
Medium grain  
Short grain

Types shall be based on the length/width ratio of kernels of rice that are unbroken and the width, thickness, and shape of kernels of rice that are broken as prescribed in FGIS instructions.

(n) Ungelatinized kernels. Whole or large broken kernels of parboiled rice with distinct white or chalky areas due to incomplete gelatinization of the starch.

(o) Whole and large broken kernels. Rice (including seeds) that (1) passes over a 6 plate (for southern production), or (2) remains on top of a 6 sieve (for western production).

(p) Whole kernels. Unbroken kernels of rice and broken kernels of rice which are at least three-fourths of an unbroken kernel.

(q) 6 sieve. A metal sieve 0.032-inch thick, perforated with rows of round holes 0.0938 (6/64) inch in diameter.

(r) 6 plate. A laminated metal plate 0.142-inch thick, with a top lamina 0.051-inch thick, perforated with rows of round holes 0.0938 (6/64) inch in diameter, and a bottom lamina 0.091-inch thick, without perforations.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982; 54 FR 21403, May 18, 1989; 54 FR 51344, Dec. 14, 1989]*

## **PRINCIPLES GOVERNING APPLICATION OF STANDARDS**

### **§868.203 Basis of determination.**

The determination of seeds, objectionable seeds, heat-damaged kernels, red rice and damaged kernels, chalky kernels, other types, color, and the special grade Parboiled rough rice shall be on the basis of the whole and large broken kernels of milled rice that are produced in the milling of rough rice to a well-milled degree. When determining class, the percentage of (a) whole kernels of rough rice shall be determined on the basis of the original sample, and (b) types of rice shall be determined on the basis of the whole and large broken kernels of milled rice that are produced in the milling of rough rice to a well-milled degree. Smutty kernels shall be determined on the basis of the rough rice after it has been cleaned and shelled as prescribed in FGIS instructions, or by any method that is approved by the Administrator as giving equivalent results. All other determinations shall be on the basis of the original sample. Mechanical sizing of kernels shall be adjusted by handpicking as prescribed in FGIS instructions, or by any method that is approved by the Administrator as giving equivalent results.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982; 54 FR 21403, May 18, 1989]*

### **§868.204 Interpretive line samples.**

Interpretive line samples showing the official scoring line for factors that are determined by visual examinations shall be maintained by the Federal Grain Inspection Service, U.S. Department of Agriculture, and shall be available for reference in all inspection offices that inspect and grade rice.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982. Redesignated at 54 FR 21403, May 18, 1989]*



**§868.205 Milling requirements.**

In determining milling yield (see§868.202(f)) in rough rice, the degree of milling shall be equal to, or better than, that of the interpretive line sample for ``well-milled" rice.

*[42 FR 40869, Aug. 12, 1977. Redesignated at 54 FR 21413, May 18, 1989]*

**§868.206 Milling yield determination.**

Milling yield shall be determined by the use of an approved device in accordance with procedures prescribed in FGIS instructions. For the purpose of this paragraph, "approved device" shall include the McGill Miller No. 3 and any other equipment that is approved by the Administrator as giving equivalent results.

*Note: Milling yield shall not be determined when the moisture content of the rough rice exceeds 18.0 percent.*

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug.10, 1982; Redesignated and amended at 54 FR 21403, May 18, 1989]*

**§868.207 Moisture.**

Water content in rough rice as determined by an approved device in accordance with procedures prescribed in the FGIS instructions. For the purpose of this paragraph, "approved device" shall include the Motomco Moisture Meter and any other equipment that is approved by the Administrator as giving equivalent results.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982. Redesignated at 54 FR 21403, May 18, 1989; 54 FR 51344, Dec. 14, 1989]*

**§868.208 Percentages.**

(a) Rounding. Percentages are determined on the basis of weight and are rounded as follows:

(1) When the figure to be rounded is followed by a figure greater than or equal to 5, round to the next higher figure; e.g., report 6.36 as 6.4, 0.35 as 0.4, and 2.45 as 2.5.

(2) When the figure to be rounded is followed by a figure less than 5, retain the figure; e.g., report 8.34 as 8.3 and 1.22 as 1.2.

(b) Recording. All percentages, except for milling yield, are stated in whole and tenth percent to the nearest tenth percent. Milling yield is stated to the nearest whole percent.

*[54 FR 21403, May 18, 1989]*

**§868.209 Information.**

Requests for the Rice Inspection Handbook, Equipment Handbook, or for information concerning approved devices and procedures, criteria for approved devices, and requests for approval of devices should be directed to the U.S. Department of Agriculture, GIPSA Federal Grain Inspection Service, P.O. Box 96454, Washington, DC 20090-6454, or any field office or cooperator.

*[54 FR 21404, May 18, 1989]*

## GRADES, GRADE REQUIREMENTS, AND GRADE DESIGNATIONS

**§868.210 Grades and grade requirements for the classes of Rough Rice. (See also §868.212.)**

Grade	Maximum limits of ---							Color requirements <sup>1</sup> (minimum)
	Seeds and heat-damaged kernels			Red rice and damaged kernels (singly or combined) (Percent)	Chalky kernels <sup>1, 2</sup>		Other types <sup>3</sup> (Percent)	
	Total (singly or combined) (Number in 500 grams)	Heat-damaged kernels and objectionable seeds (singly or combined) (Number in 500 grams)	Heat-damaged kernels (Number in 500 grams)		In long grain rice (Percent)	In medium or short grain rice (Percent)		
U.S.No. 1	4	3	1	0.5	1.0	2.0	1.0	Shall be white or creamy.
U.S.No. 2	7	5	2	1.5	2.0	4.0	2.0	May be slightly gray.
U.S.No. 3	10	8	5	2.5	4.0	6.0	3.0	May be light gray.
U.S.No. 4	27	22	15	4.0	6.0	8.0	5.0	May be gray or slightly rosy.
U.S.No. 5	37	32	25	6.0	10.0	10.0	10.0	May be dark gray or rosy.
U.S.No. 6	75	75	75	15.0 <sup>4</sup>	15.0	15.0	10.0	May be dark gray or rosy.

U.S. Sample grade---

U.S. Sample grade shall be rough rice which: (a) does not meet the requirements for any of the grades from U.S. No. 1 to U.S. No. 6, inclusive; (b) contains more than 14.0 percent moisture; (c) is musty, or sour, or heating; (d) has any commercially objectionable foreign odor; or (e) is otherwise of distinctly low quality.

<sup>1</sup>For the special grade Parboiled rough rice, see §868.212(b).

<sup>2</sup>For the special grade Glutinous rough rice, see §868.212(d).

<sup>3</sup>These limits do not apply to the class Mixed Rough Rice.

<sup>4</sup>Rice in grade U.S. No. 6 shall contain not more than 6.0 percent of damaged kernels.

[56 FR 55978, Oct. 31, 1991]

### **§868.211 Grade designation.**

(a) The grade designation for all classes of rough rice, except Mixed Rough Rice, shall include in the following order: (1) The letters "U.S." (2) the number of the grade or the words "Sample grade", as warranted; (3) the words "or better" when applicable and requested by the applicant prior to inspection; (4) the class; (5) each applicable special grade (see §868.213); and (6) a statement of the milling yield.

(b) The grade designation for the class Mixed Rough Rice shall include, in the following order: (1) The letters "U.S."; (2) the number of the grade or the words "Sample grade," as warranted; (3) the words "or better," when applicable and requested by the applicant prior to inspection; (4) the class; (5) each applicable special grade (see §868.213); (6) the percentage of whole kernels of each type in the order of predominance; (7) the percentage of large broken kernels of each type in the order of predominance; (8) the percent of material removed by the No. 6 sieve or the No. 6 sizing plate; (9) when applicable, the percentage of seeds; and (10) a statement of the milling yield.

*Note: Large broken kernels other than long grain, in Mixed Rough Rice, shall be certificated as "medium or short grain."*

*[42 FR 40869, Aug. 12, 1977, as amended at 54 FR 51344, Dec. 14, 1989]*

## **SPECIAL GRADES, GRADE REQUIREMENTS, AND GRADE DESIGNATIONS**

### **§868.212 Special grades and requirements.**

A special grade, when applicable, is supplemental to the grade assigned under §868.210. Such special grades for rough rice are established and determined as follows:

(a) Infested rough rice. Tolerances for live insects for infested rough rice are defined according to sampling designations as follows:

(1) Representative sample. The representative sample consists of the work portion, and the file sample if needed and when available. The rough rice (except when examined according to paragraph (a)(3) of this section) will be considered infested if the representative sample contains two or more live weevils, or one live weevil and one or more other live insects injurious to stored rice or five or more other live insects injurious to stored rice.

(2) Lot as a whole (stationary). The lot as a whole is considered infested when two or more live weevils, or one live weevil and one or more other live insects injurious to stored rice, or five or more other live insects injurious to stored rice, or 15 or more live Angoumois moths or other live moths injurious to stored rice are found in, on, or about the lot.

(3) Sample as a whole during continuous loading/unloading. The minimum sample size for rice being sampled during continuous loading/unloading is 500 grams per each 100,000 pounds of rice. The sample as a whole is considered infested when a component (as defined in FGIS instructions) contains two or more live weevils, or one live weevil and one or more other live insects injurious to stored rice, or five or more other live insects injurious to stored rice.

(b) Parboiled rough rice. Parboiled rough rice shall be rough rice in which the starch has been gelatinized by soaking, steaming, and drying. Grades U.S. No. 1 to U.S. No. 6 inclusive, shall contain not more than 10.0 percent of ungelatinized kernels. Grades U.S. No. 1 and U.S. No. 2 shall contain not more than 0.1 percent, grades U.S. No. 3 and U.S. No. 4 not more than 0.2 percent, and grades U.S. No. 5 and U.S. No. 6 not more than 0.5 percent of nonparboiled rice. If the rice is: (1) Not distinctly colored by the parboiling process, it shall be considered "Parboiled Light"; (2) distinctly but not materially colored by the parboiling process, it shall be considered "Parboiled"; (3) materially colored by the parboiling process, it shall be considered "Parboiled Dark." The color levels for "Parboiled Light," "Parboiled," and "Parboiled Dark" rice shall be in accordance with the interpretive line samples for parboiled rice.

*Note: The maximum limits for "Chalky kernels," "Heat-damaged kernels," "Kernels damaged by heat," and the "Color requirements" shown in §868.210 are not applicable to the special grade "Parboiled rough rice."*

(c) Smutty rough rice. Smutty rough rice shall be rough rice which contains more than 3.0 percent of smutty kernels.

(d) Glutinous rough rice. Glutinous rough rice shall be special varieties of rice (*Oryza sativa* L. *glutinosa*) which contain more than 50 percent chalky kernels. Grade U.S. No. 1 shall contain not more than 1.0 percent of nonchalky kernels, grade U.S. No. 2 not more than 2.0 percent of nonchalky kernels, grade U.S. No. 3 not more than 4.0 percent of nonchalky kernels, grade U.S. No. 4 not more than 6.0 percent of nonchalky kernels, grade U.S. No. 5 not more than 10.0 percent of nonchalky kernels, and grade U.S. No. 6 not more than 15.0 percent of nonchalky kernels.

*Note: The maximum limits for "Chalky kernels" in §868.210 are not applicable to the special grade "Glutinous rough rice."*

(e) Aromatic rough rice. Aromatic rough rice shall be special varieties of rice (*Oryza sativa* L. scented) that have a distinctive and characteristic aroma; e.g., basmati and jasmine rice. [42 FR 40869, Aug. 12, 1977, as amended at 54 FR 21406, May 18, 1989; 56 FR 55978, Oct. 31, 1991; 58 FR 68016, Dec. 23, 1993]

### **§868.213 Special grade designation.**

The grade designation for infested, parboiled, smutty, glutinous, or aromatic rough rice shall include, following the class, the word(s) "Infested," "Parboiled Light," "Parboiled," "Parboiled

Dark," "Smutty," "Glutinous," or "Aromatic," as warranted, and all other information prescribed in §§868.211.  
*[58 FR 68016, Dec. 23, 1993]*

# UNITED STATES STANDARDS FOR BROWN RICE FOR PROCESSING

*Note to the Subpart: Compliance with the provisions of these standards does not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or other Federal laws. Source: 42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, unless otherwise noted.*

## TERMS DEFINED

### **§868.251 Definition of brown rice for processing.**

Rice (*Oryza sativa* L.) which consists of more than 50.0 percent of kernels of brown rice, and which is intended for processing to milled rice.

### **§868.252 Definition of other terms.**

For the purposes of these standards, the following terms shall have the meanings stated below:

- (a) Broken kernels. Kernels of rice which are less than three-fourths of whole kernels.
- (b) Brown rice. Whole or broken kernels of rice from which the hulls have been removed.
- (c) Chalky kernels. Whole or broken kernels of rice which are one-half or more chalky.
- (d) Classes. There are four classes of brown rice for processing.

Long Grain Brown Rice for Processing.  
Medium Grain Brown Rice for Processing.  
Short Grain Brown Rice for Processing.  
Mixed Brown Rice for Processing.

Classes shall be based on the percentage of whole kernels, broken kernels, and types of rice.

- (1) "Long-grain brown rice for processing" shall consist of brown rice for processing which contains more than 25.0 percent of whole kernels of brown rice and not more than 10.0 percent of whole or broken kernels of medium- or short-grain rice.
- (2) "Medium-grain brown rice for processing" shall consist of brown rice for processing which contains more than 25.0 percent of whole kernels of brown rice and not more than 10.0 percent of whole or broken kernels of long-grain rice or whole kernels of short-grain rice.
- (3) "Short-grain brown rice for processing" shall consist of brown rice for processing which contains more than 25.0 percent of whole kernels of brown rice and not more than 10.0 percent of whole or broken kernels of long-grain rice or whole kernels of medium-grain rice.

(4) "Mixed brown rice for processing" shall be brown rice for processing which contains more than 25.0 percent of whole kernels of brown rice and more than 10.0 percent of "other types" as defined in paragraph (i) of this section.

(e) Damaged kernels. Whole or broken kernels of rice which are distinctly discolored or damaged by water, insects, heat, or any other means (including parboiled kernels in nonparboiled rice and smutty kernels). "Heat-damaged kernels" (see paragraph (f) of this section) shall not function as damaged kernels.

(f) Heat-damaged kernels. Whole or broken kernels of rice which are materially discolored and damaged as a result of heating and parboiled kernels in nonparboiled rice which are as dark as, or darker in color than, the interpretive line for heat-damaged kernels.

(g) Milling yield. An estimate of the quantity of whole kernels and total milled rice (whole and broken kernels combined) that is produced in the milling of brown rice for processing to a well-milled degree.

(h) Objectionable seeds. Whole or broken seeds other than rice, except seeds of *Echinochloa crusgalli* (commonly known as barnyard grass, watergrass, and Japanese millet).

(i) Other types. (1) Whole kernels of: (i) Long grain rice in medium or short grain rice and medium or short grain rice in long grain rice, (ii) medium grain rice in long or short grain rice, (iii) short grain rice in long or medium grain rice, (2) broken kernels of long grain rice in medium or short grain rice and broken kernels of medium or short grain rice in long grain rice.

*Note: Broken kernels of medium grain rice in short grain rice and broken kernels of short grain rice in medium grain rice shall not be considered other types.*

(j) Paddy Kernels. Whole or broken unhulled kernels and whole or broken kernels of rice having a portion or portions of the hull remaining which cover one-half (1/2) or more of the whole or broken kernel.

(k) Red rice. Whole or broken kernels of rice on which the bran is distinctly red in color.

(l) Related material. All by-products of a paddy kernel, such as the outer glumes, lemma, palea, awn, embryo, and bran layers.

(m) Seeds. Whole or broken seeds of any plant other than rice.

(n) Smutty kernels. Whole or broken kernels of rice which are distinctly infected by smut.

(o) Types of rice. There are three types of brown rice for processing:

- Long grain
- Medium grain
- Short grain

Types shall be based on the length/width ratio of kernels of rice that are unbroken and the width, thickness, and shape of kernels of rice that are broken as prescribed in FGIS instructions.

(p) Ungelatinized kernels. Whole or broken kernels of parboiled rice with distinct white or chalky areas due to incomplete gelatinization of the starch.

(q) Unrelated material. All matter other than rice, related material, and seeds.

(r) Well-milled kernels. Whole or broken kernels of rice from which the hulls and practically all of the embryos and the bran layers have been removed.

(s) Whole kernels. Unbroken kernels of rice and broken kernels of rice which are at least three-fourths of an unbroken kernel.

(t) 6 plate. A laminated metal plate 0.142-inch thick, with a top lamina 0.051-inch thick, perforated with rows of round holes 0.0938 (6/64) inch in diameter, and a bottom lamina 0.091-inch thick, without perforations.

(u) 6 1/2 sieve. A metal sieve 0.032-inch thick, perforated with rows of round holes 0.1016 (6 1/2 /64) inch in diameter.

*[13 FR 9479, Dec. 31, 1948, as amended at 44 FR 73008, Dec. 17, 1979; 47 FR 34516, Aug. 10, 1982; 54 FR 21403, 21406, May 18, 1989; 54 FR 51344, Dec. 14, 1989]*

## **PRINCIPLES GOVERNING APPLICATION OF STANDARDS**

### **§868.253 Basis of determination.**

The determination of kernels damaged by heat, heat-damaged kernels, parboiled kernels in nonparboiled rice, and the special grade Parboiled brown rice for processing shall be on the basis of the brown rice for processing after it has been milled to a well-milled degree. All other determinations shall be on the basis of the original sample. Mechanical sizing of kernels shall be adjusted by handpicking as prescribed in FGIS instructions, or by any method which gives equivalent results.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982; 54 FR 21403, 21406, May 18, 1989]*

### **§868.254 Broken kernels determination.**

Broken kernels shall be determined by the use of equipment and procedures prescribed in FGIS instructions, 2/ or by any method which gives equivalent results.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982; 54 FR 21403, May 18, 1989. Redesignated at 54 FR 21406, May 18, 1989]*



**§868.255 Interpretive line samples.**

Interpretive line samples showing the official scoring line for factors that are determined by visual observation shall be maintained by the Federal Grain Inspection Service, U.S. Department of Agriculture, and shall be available for reference in all inspection offices that inspect and grade rice. [42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug.10, 1982; 54 FR 21403, May 18, 1989. Redesignated at 54 FR 21406, May 18, 1989]

**§868.256 Milling requirements.**

In determining milling yield (see §868.252(g)) in brown rice for processing, the degree of milling shall be equal to, or better than, that of the interpretive line sample for "well-milled" rice. [42 FR 40869, Aug. 12, 1977. Redesignated at 21406, May 18, 1989]

**§868.257 Milling yield determination.**

Milling yield shall be determined by the use of an approved device in accordance with procedures prescribed in FGIS instructions. For the purpose of this paragraph, "approved device" shall include the McGill Miller No. 3 and any other equipment that is approved by the Administrator as giving equivalent results.

*Note: Milling yield shall not be determined when the moisture content of the brown rice for processing exceeds 18.0 percent.*

[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug.10, 1982; 54 FR 21403, May 18, 1989. Redesignated at 54 FR 21406, May 18, 1989]

**§868.258 Moisture.**

Water content in brown rice for processing as determined by an approved device in accordance with procedures prescribed in FGIS instructions. For the purpose of this paragraph, "approved device" shall include the Motomco Moisture Meter and any other equipment that is approved by the Administrator as giving equivalent results.

[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982; 54 FR 21403, May 18, 1989. Redesignated at 54 FR 21406, May 18, 1989]

**§868.259 Percentages.**

(a) Rounding. Percentages are determined on the basis of weight and are rounded as follows:

(1) When the figure to be rounded is followed by a figure greater than or equal to 5, round to the next higher figure; e.g., report 6.36 as 6.4, 0.35 as 0.4, and 2.45 as 2.5.

(2) When the figure to be rounded is followed by a figure less than 5, retain the figure, e.g., report 8.34 as 8.3 and 1.22 and 1.2.

(b) Recording All percentages, except for milling yield, are stated in whole and tenth percent to the nearest whole percent. Milling yield is stated to the nearest whole percent.

[54 FR 21406, May 18, 1989]

**§868.260 Information.**

Requests for the Rice Inspection Handbook, Equipment Handbook, or for information concerning approved devices and procedures, criteria for approved devices, and requests for approval of devices should be directed to the U.S. Department of Agriculture, Federal Grain Inspection Service, P.O. Box 96454, Washington, DC 20090-96454, or any field office or cooperator.

*[54 FR 21406, May 18, 1989]*

## GRADES, GRADE REQUIREMENTS, AND GRADE DESIGNATIONS

**§868.261 Grade and grade requirements for the classes of brown rice for processing. (See also §868.263.)**

Grade	Maximum limits of--									
	Paddy kernels		Seeds and heat-damaged kernels			Red rice and damaged kernels (singly or combined) (Percent)	Chalky kernels <sup>1,2</sup>	Broken kernels removed by a 6 plate or a 6 ½ sieve <sup>3</sup> (percent)	Other Types <sup>4</sup>	Well-milled kernels (percent)
	Percent	Number in 500 grams	Total (singly or combined) (number in 500 grams)	Heat-damaged kernels (number in 500 grams)	Objectionable seeds (number in 500 grams)					
U.S. No.1	---	20	10	1	2	1.0	2.0	1.0	1.0	1.0
U.S. No.2	2.0	---	40	2	10	2.0	4.0	2.0	2.0	3.0
U.S. No.3	2.0	---	70	4	30	4.0	6.0	3.0	5.0	10.0
U.S. No.4	2.0	---	100	8	35	8.0	8.0	4.0	10.0	10.0
U.S. No.5	2.0	---	150	15	50	15.0	15.0	6.0	10.0	10.0

### U.S. Sample grade

U.S. Sample grade shall be brown rice for processing which (a) does not meet the requirements for any of the grades from U.S. No. 1 to U.S. No. 5, inclusive; (b) contains more than 14.5 percent of moisture; (c) is musty, or sour, or heating; (d) has any commercially objectionable foreign odor; or (g) is otherwise of distinctly low quality.

<sup>1</sup>For the special grade Parboiled brown rice for processing, see 868.263(a).

<sup>2</sup>For the special grade Glutinous brown rice for processing, see 868.263(c).

<sup>3</sup>Plates should be used for southern production rice and sieves should be used for western production rice, but any device or method which gives equivalent results may be used.

<sup>4</sup>These limits do not apply to the class Mixed Brown Rice for Processing.

[56 FR 55979, Oct. 31, 1991]

**§868.262 Grade designation.**

(a) The grade designation for all classes of brown rice for processing, except Mixed Brown Rice for Processing, shall include in the following order: (1) The letters "U.S."; (2) the number of the grade or the words "Sample grade," as warranted; (3) the words "or better," when applicable and requested by the applicant prior to inspection; (4) the class; and (5) each applicable special grade (see §868.264).

(b) The grade designation for the class Mixed Brown Rice for Processing shall include in the following order: (1) The letters "U.S."; (2) the number of the grade or the words "Sample grade," as warranted; (3) the words "or better," when applicable and requested by the applicant prior to inspection; (4) the class; (5) each applicable special grade (see §868.264); (6) the percentage of whole kernels of each type in the order of predominance; and when applicable; (7) the percentage of broken kernels of each type in the order of predominance; and (8) the percentage of seeds, related material, and unrelated material.

*Note: Broken kernels other than long grain, in Mixed Brown Rice for Processing, shall be certificated as "medium or short grain."*

**SPECIAL GRADES, GRADE REQUIREMENTS, AND GRADE DESIGNATIONS**

**§868.263 Special grades and special grade requirements.**

A special grade, when applicable, is supplemental to the grade assigned under §868.262. Such special grades for brown rice for processing are established and determined as follows:

(a) Parboiled brown rice for processing. Parboiled brown rice for processing shall be rice in which the starch has been gelatinized by soaking, steaming, and drying. Grades U.S. Nos. 1 to 5, inclusive, shall contain not more than 10.0 percent of ungelatinized kernels. Grades U.S. No. 1 and U.S. No. 2 shall contain not more than 0.1 percent, grades U.S. No. 3 and U.S. No. 4 not more than 0.2 percent, and grade U.S. No. 5 not more than 0.5 percent of nonparboiled rice. *Note: The maximum limits for "Chalky kernels," "Heat-damaged kernels," and "Kernels damaged by heat" shown in §868.261 are not applicable to the special grade "Parboiled brown rice for processing."*

(b) Smutty brown rice for processing. Smutty brown rice for processing shall be rice which contains more than 3.0 percent of smutty kernels.

(c) Glutinous brown rice for processing. Glutinous brown rice for processing shall be special varieties of rice (*Oryza sativa* L. *glutinosa*) which contain more than 50 percent chalky kernels. Grade U.S. No. 1 shall contain not more than 1.0 percent of nonchalky kernels, grade U.S. No. 2 not more than 2.0 percent of nonchalky kernels, grade U.S. No. 3 not more than 4.0 percent of nonchalky kernels, grade U.S. No. 4 not more than 6.0 percent of nonchalky kernels, and grade U.S. No. 5 not more than 10.0 percent of nonchalky kernels.

*Note: The maximum limits for "Chalky kernels" in §868.261 are not applicable to the special grade "Glutinous brown rice for processing."*

(d) Aromatic brown rice for processing. Aromatic brown rice for processing shall be special varieties of rice (*Oryza sativa* L. scented) that have a distinctive and characteristic aroma; e.g., basmati and jasmine rice.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 56 FR 55979, Oct.31, 1991; 58 FR 68016, Dec. 23, 1993]*

**§868.264 Special grade designation.**

The grade designation for parboiled, smutty, glutinous, or aromatic brown rice for processing shall include, following the class, the word(s) "Parboiled," "Smutty," "Glutinous," or "Aromatic," as warranted, and all other information prescribed in 1A68.262.

*[58 FR 68016, Dec. 23, 1993]*

# UNITED STATES STANDARDS FOR MILLED RICE

*Note to the Subpart: Compliance with the provisions of these standards does not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or other Federal laws. Source: 42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, unless otherwise noted.*

## TERMS DEFINED

### **§868.301 Definition of milled rice.**

Whole or broken kernels of rice (*Oryza sativa* L.) from which the hulls and at least the outer bran layers have been removed and which contain not more than 10.0 percent of seeds, paddy kernels, or foreign material, either singly or combined.

*[48 FR 24859, June 3, 1983]*

### **§868.302 Definition of other terms.**

For the purposes of these standards, the following terms shall have the meanings stated below:

- (a) Broken kernels. Kernels of rice which are less than three-fourths of whole kernels.
- (b) Brown rice. Whole or broken kernels of rice from which the hulls have been removed.
- (c) Chalky kernels. Whole or broken kernels of rice which are one-half or more chalky.
- (d) Classes. There are seven classes of milled rice. The following four classes shall be based on the percentage of whole kernels, and types of rice:

- Long Grain Milled Rice.
- Medium Grain Milled Rice.
- Short Grain Milled Rice.
- Mixed Milled Rice.

The following three classes shall be based on the percentage of whole kernels and of broken kernels of different size:

- Second Head Milled Rice.
- Screenings Milled Rice.
- Brewers Milled Rice.

(1) "Long grain milled rice" shall consist of milled rice which contains more than 25.0 percent of whole kernels of milled rice and in U.S. Nos. 1 through 4 not more than 10.0 percent of whole or broken kernels of medium or short grain rice. U.S. No. 5 and U.S. No. 6 long grain milled rice shall contain not more than 10.0 percent of whole kernels of medium or short grain milled rice (broken kernels do not apply).

(2) "Medium grain milled rice" shall consist of milled rice which contains more than 25.0 percent of whole kernels of milled rice and in U.S. Nos. 1 through 4 not more than 10.0 percent of whole or broken kernels of long grain rice or whole kernels of short grain rice. U.S. No. 5 and U.S. No. 6 medium grain milled rice shall contain not more than 10.0 percent of whole kernels of long or short grain milled rice (broken kernels do not apply).

(3) "Short grain milled rice" shall consist of milled rice which contains more than 25.0 percent of whole kernels of milled rice and in U.S. Nos. 1 through 4 not more than 10.0 percent of whole or broken kernels of long grain rice or whole kernels of medium grain rice. U.S. No. 5 and U.S. No. 6 short grain milled rice shall contain not more than 10.0 percent of whole kernels of long or medium grain milled rice (broken kernels do not apply).

(4) "Mixed milled rice" shall consist of milled rice which contains more than 25.0 percent of whole kernels of milled rice and more than 10.0 percent of "other types" as defined in paragraph of this section. U.S. No. 5 and U.S. No. 6 mixed milled rice shall contain more than 10.0 percent of whole kernels of "other type" (broken kernels do not apply).

(5) "Second head milled rice" shall consist of milled rice which, when determined in accordance with §868.303, contains:

(i) Not more than (a) 25.0 percent of whole kernels, (b) 7.0 percent of broken kernels removed by a 6 plate, (c) 0.4 percent of broken kernels removed by a 5 plate, and (d) 0.05 percent of broken kernels passing through a 4 sieve (southern production); or

(ii) Not more than (a) 25.0 percent of whole kernels, (b) 50.0 percent of broken kernels passing through a 6 1/2 sieve, and (c) 10.0 percent of broken kernels passing through a 6 sieve (western production).

(6) "Screenings milled rice" shall consist of milled rice which, when determined in accordance with §868.303, contains:

(i) Not more than (a) 25.0 percent of whole kernels, (b) 10.0 percent of broken kernels removed by a 5 plate, and (c) 0.2 percent of broken kernels passing through a 4 sieve (southern production); or

(ii) Not more than (a) 25.0 percent of whole kernels and (b) 15.0 percent of broken kernels passing through a 5 1/2 sieve; and more than (c) 50.0 percent of broken kernels passing through a 6 1/2 sieve and (d) 10.0 percent of broken kernels passing through a 6 sieve (western production).

(7) "Brewers milled rice" shall consist of milled rice which, when determined in accordance with §868.303, contains not more than 25.0 percent of whole kernels and which does not meet the kernel-size requirements for the class Second Head Milled Rice or Screenings Milled Rice.

(e) Damaged kernels. Whole or broken kernels of rice which are distinctly discolored or damaged by water, insects, heat, or any other means, and parboiled kernels in nonparboiled rice.

"Heat-damaged kernels" (see paragraph (g) of this section) shall not function as damaged kernels.

(f) Foreign material. All matter other than rice and seeds. Hulls, germs, and bran which have separated from the kernels of rice shall be considered foreign material.

(g) Heat-damaged kernels. Whole or broken kernels of rice which are materially discolored and damaged as a result of heating and parboiled kernels in nonparboiled rice which are as dark as, or darker in color than, the interpretive line for heat-damaged kernels.

(h) Objectionable seeds. Seeds other than rice, except seeds of *Echinochloa crusgalli* (commonly known as barnyard grass, watergrass, and Japanese millet).

(i) Other types. (1) Whole kernels of: (i) Long grain rice in medium or short grain rice, (ii) medium grain rice in long or short grain rice, (iii) Short grain rice in long or medium grain rice, and (2) broken kernels of long grain rice in medium or short grain rice and broken kernels of medium or short grain rice in long grain rice, except in U.S. No. 5 and U.S. No. 6 milled rice. In U.S. No. 5 and U.S. No. 6 milled rice, only whole kernels will apply.

*Note: Broken kernels of medium grain rice in short grain rice and broken kernels of short grain rice in medium grain rice shall not be considered other types.*

(j) Paddy Kernels. Whole or broken unhulled kernels of rice; whole or broken kernels of brown rice, and whole or broken kernels of milled rice having a portion or portions of the hull remaining which cover one-eighth (1/8) or more of the whole or broken kernel.

(k) Red rice. Whole or broken kernels of rice on which there is an appreciable amount of red bran.

(l) Seeds. Whole or broken seeds of any plant other than rice.

(m) Types of rice. There are three types of milled rice as follows:

- Long grain
- Medium grain
- Short grain

Types shall be based on the length-width ratio of kernels of rice that are unbroken and the width, thickness, and shape of kernels that are broken, prescribed in FGIS instructions.

(n) Ungelatinized kernels. Whole or broken kernels of parboiled rice with distinct white or chalky areas due to incomplete gelatinization of the starch.



(o) Well milled kernels. Whole or broken kernels of rice from which the hulls and practically all of the germs and the bran layers have been removed.

*Note: This factor is determined on an individual kernel basis and applies to the special grade Undermilled milled rice only.*

(p) Whole kernels. Unbroken kernels of rice and broken kernels of rice which are at least three-fourths of an unbroken kernel.

(q) 5 plate. A laminated metal plate 0.14209-inch thick, with a top lamina, 0.05109-inch thick, perforated with rows of round holes 0.0781 (5/64) inch in diameter, 5/32 inch from center to center, with each row staggered in relation to the adjacent rows, and a bottom lamina 0.091-inch thick, without perforations.

(r) 6 plate. A laminated metal plate 0.142-inch thick, with a top lamina 0.051-inch thick, perforated with rows of round holes 0.0938 (6/64) inch in diameter, 5/32 inch from center to center, with each row staggered in relation to the adjacent rows, and a bottom lamina 0.09109-inch thick, without perforations.

(s) 2 1/2 sieve. A metal sieve 0.032-inch thick, perforated with rows of round holes 0.0391 (2 1/2/64) inch in diameter, 0.075-inch from center to center, with each row staggered in relation to the adjacent rows.

(t) 4 sieve. A metal sieve 0.032-inch thick, perforated with rows of round holes 0.0625 (4/64) inch in diameter, 1/8 inch from center to center, with each row staggered in relation to the adjacent rows.

(u) 5 sieve. A metal sieve 0.032-inch thick, perforated with rows of round holes 0.0781 (5/64) inch in diameter, 5/32 inch from center to center, with each row staggered in relation to the adjacent rows.

(v) 5 1/2 sieve. A metal sieve 0.032-inch thick, perforated with rows of round holes 0.0859 (5 1/2/64) inch in diameter, 9/64 inch from center to center, with each row staggered in relation to the adjacent rows.

(w) 6 sieve. A metal sieve 0.032-inch thick, perforated with rows of round holes 0.0938 (6/64) inch in diameter, 5/32 inch from center to center, with each row staggered in relation to the adjacent rows.

(x) 6 1/2 sieve. A metal sieve 0.032-inch thick, perforated with rows of round holes 0.1016 (6 1/2/64) inch in diameter, 5/32 inch from center to center, with each row staggered in relation to the adjacent rows.

(y) 30 sieve. A woven wire cloth sieve having 0.0234-inch openings, with a wire diameter of 0.0153 inch, and meeting the specifications of American Society for Testing and Materials Designation E-11-61, prescribed in FGIS instructions.

*[13 FR 9479, Dec. 31, 1948, as amended at 44 FR 73008, Dec. 17, 1979; 47 FR 34516, Aug. 10, 1982; 54 FR 21403, 21406, May 18, 1989; 54 FR 51345, Dec. 14, 1989]*

## **PRINCIPLES GOVERNING APPLICATION OF STANDARDS**

### **§868.303 Basis of determination.**

All determinations shall be on the basis of the original sample. Mechanical sizing of kernels shall be adjusted by handpicking, as prescribed in FGIS instructions, or by any method which gives equivalent results.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982; 54 FR 21403, 21406, May 18, 1989]*

### **§868.304 Broken kernels determination.**

Broken kernels shall be determined by the use of equipment and procedures prescribed in FGIS instructions or by any method which gives equivalent results.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982; 54 FR 21403, May 18, 1989. Redesignated at 54 FR 21406, May 18, 1989]*

### **§868.305 Interpretive line samples.**

Interpretive line samples showing the official scoring line for factors that are determined by visual observation shall be maintained by the Federal Grain Inspection Service, U.S. Department of Agriculture, and shall be available for reference in all inspection offices that inspect and grade rice.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982. Redesignated at 54 FR 21406, May 18, 1989]*

### **§868.306 Milling requirements.**

The degree of milling for milled rice; i.e., "hard milled," "well milled," and "reasonably well milled," shall be equal to, or better than, that of the interpretive line samples for such rice.

*[42 FR 40869, Aug. 12, 1977. Redesignated at 54 FR 21406, May 18, 1989]*

### **§868.307 Moisture.**

Water content in milled rice as determined by an approved device in accordance with procedures prescribed in FGIS instructions. For the purpose of this paragraph, "approved device" shall include the Motomco Moisture Meter and any other equipment that is approved by the Administrator as giving equivalent results.

*[42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 47 FR 34516, Aug. 10, 1982; 54 FR 21403, May 18, 1989. Redesignated at 54 FR 21406, May 18, 1989]*

**§868.308 Percentages.**

(a) Rounding. Percentages are determined on the basis of weight and are rounded as follows:

(1) When the figure to be rounded is followed by a figure greater than or equal to 5, round to the next higher figure; e.g., report 6.36 as 6.4, 0.35 as 0.4, and 2.45 as 2.5.

(2) When the figure to be rounded is followed by a figure less than 5, retain the figure, e.g., report 8.34 as 8.3 and 1.22 and 1.2.

(b) Recording. The percentage of broken kernels removed by a 5 plate in U.S. Nos. 1 and 2 Milled Rice and the percentage of objectionable seeds in U.S. No. 1 Brewers Milled Rice is reported to the nearest hundredth percent. The percentages of all other factors are recorded to the nearest tenth of a percent.

*[54 FR 21406, May 18, 1989]*

**§868.309 Information.**

Requests for the Rice Inspection Handbook, Equipment Handbook, or for information concerning approved devices and procedures, criteria for approved devices, and requests for approval of devices should be directed to the U.S. Department of Agriculture, Federal Grain Inspection Service, P.O. Box 96454, Washington, DC 20090-96454, or any field office or cooperator.

*[54 FR 21407, May 18, 1989]*

## GRADES, GRADE REQUIREMENTS, AND GRADE DESIGNATIONS

**§868.310 Grades and grade requirements for the classes Long Grain Milled Rice, Medium Grain Milled Rice, Short Grain Milled Rice, and Mixed Milled Rice. (See also §868.315.)**

Grade	Maximum limits of ---											Color requirements <sup>1</sup>	Minimum milling requirements <sup>5</sup>
	Seeds, heat damaged, and paddy kernels (singly or combined)		Red rice and damaged kernels (singly or combined) (percent)	Chalky kernels <sup>1, 2</sup>		Broken kernels				Other types <sup>4</sup>			
	Total (Number in 500 grams)	Heat damaged kernels and objectionable seeds (Number in 500 grams)		In long grain rice (percent)	In medium or short grain rice (percent)	Total (percent)	Removed by a 5 plate <sup>3</sup> (percent)	Removed by a 6 plate <sup>3</sup> (percent)	Through a 6 sieve <sup>3</sup> (percent)	Whole kernels (percent)	Whole and broken kernels (percent)		
U.S.No. 1	2	1	0.5	1.0	2.0	4.0	0.04	0.1	0.1	--	1.0	Shall be White or creamy	Well milled
U.S.No. 2	4	2	1.5	2.0	4.0	7.0	0.06	0.2	0.2	--	2.0	May be Slightly gray	Well milled
U.S.No. 3	7	5	2.5	4.0	6.0	15.0	0.1	0.8	0.5	--	3.0	May be Light gray	Reasonably well milled
U.S.No. 4	20	15	4.0	6.0	8.0	25.0	0.4	1.0	0.7	--	5.0	May be Gray or slightly rosy	Reasonably well milled
U.S.No. 5	30	25	<sup>5</sup> 6.0	10.0	10.0	35.0	0.7	3.0	1.0	10.0	--	May be Dark gray or rosy	Reasonably well milled
U.S.No. 6	75	75	<sup>6</sup> 15.0	15.0	15.0	50.0	1.0	4.0	2.0	10.0	--	May be Dark gray or rosy	Reasonably well milled

**U.S. Sample grade:**

U.S. Sample grade shall be milled rice of any of these classes which: (a) does not meet the requirements for any of the grades from U.S. No.1 to U.S. No.6, inclusive; (b) contains more than 15.0 percent of moisture; (c) is musty or sour, or heating; (d) has any commercially objectionable foreign odor; (e) contains more than 0.1 percent of foreign material; (f) contains two or more live or dead weevils or other insects, insect webbing, or insect refuse; or (g) is otherwise of distinctly low quality.

<sup>1</sup>For the special grade Parboiled milled rice, see §868.315(c).

<sup>2</sup>For the special grade Glutinous milled rice, see §868.315(e).

<sup>3</sup>Plates should be used for southern production rice; and sieves should be used for western production rice, but any device or method which gives equivalent results may be used.

<sup>4</sup>These limits do not apply to the class Mixed Milled Rice.

<sup>5</sup>For the special grade Undermilled milled rice, see §868.315(d).

<sup>6</sup>Grade U.S. No. 6 shall contain not more than 6.0 percent of damaged kernels.

[56 FR 55979, Oct. 31, 1991]

**§868.311 Grades and grade requirements for the class Second Head Milled Rice. (See also §868.315.)**

Grade	Maximum limits of---				Color requirements <sup>1</sup>	Minimum Milling requirements <sup>2</sup>
	Seeds, heat-damaged, and paddy kernels (singly or combined)		Red rice and damaged kernels (singly or combined) (percent)	Chalky kernels <sup>1 2</sup> (percent)		
	Total (Number in 500 grams)	Heat-damaged kernels and objectionable seeds (Number in 500 grams)				
U.S. No.1	15	5	1.0	4.0	Shall be white or creamy	Well milled.
U.S. No.2	20	10	2.0	6.0	May be slightly gray	Well milled
U.S. No.3	35	15	3.0	10.0	May be light gray	Reasonably well milled
U.S. No.4	50	25	5.0	15.0	May be gray or slightly rosy	Reasonably well milled
U.S. No.5	75	40	10.0	20.0	May be dark gray or rosy	Reasonably well milled

**U.S. Sample grade:**

U.S. Sample grade shall be milled rice of this class which: (a) does not meet the requirements for any of the grades from U.S. No. 1 to U.S. No. 5, inclusive; (b) contains more than 15.0 percent of moisture; (c) is musty or sour, or heating; (d) has any commercially objectionable foreign odor; (e) contains more than 0.1 percent of foreign material; (f) contains two or more live or dead weevils or other insects, insect webbing, or insect refuse; or (g) is otherwise of distinctly low quality.

<sup>1</sup>For the special grade Parboiled milled rice, see §868.315(c).

<sup>2</sup>For the special grade Undermilled milled rice, see §868.315(d).

<sup>3</sup>For the special grade Glutinous milled rice, see §868.315(e).

[56 FR 55980, Oct. 31, 1991]

**§868.312 Grades and grade requirements for the class Screenings Milled Rice. (See also §868.315.)**

Grade	Maximum limits of--			Minimum level	
	Maximum number in 500 grams		Chalky kernels <sup>1,3</sup> (percent)	Color requirements <sup>1</sup>	Minimum milling requirements <sup>2</sup>
	Paddy Kernels and Seeds Total (Singly or Combined)	Objectionable seeds			
U.S. No.1 <sup>4,5</sup>	30	20	5.0	White or Creamy	Well milled.
U.S. No.2 <sup>4,5</sup>	75	50	8.0	Slightly gray	Well milled
U.S. No.3 <sup>4,5</sup>	125	90	12.0	Light gray or slightly rosy	Reasonably well milled
U.S. No.4 <sup>4,5</sup>	175	140	20.0	Gray or rosy	Reasonably well milled
U.S. No.5 <sup>4,5</sup>	250	200	30.0	Dark gray or very rosy	Reasonably well milled

**U.S. Sample grade:**

U.S. Sample grade shall be milled rice of this class which: (a) does not meet the requirements for any of the grades from U.S. No. 1 to U.S. No. 5, inclusive; (b) contains more than 15.0 percent of moisture; (c) is musty or sour, or heating; (d) has any commercially objectionable foreign odor; (e) has a badly damaged or extremely red appearance; (f) contains more than 0.1 percent of foreign material; (g) contains two or more live or dead weevils or other insects, insect webbing, or insect refuse; or (h) is otherwise of distinctly low quality.

<sup>1</sup>For the special grade Parboiled milled rice, see §868.315(c).

<sup>2</sup>For the special grade Undermilled milled rice, see §868.315(d).

<sup>3</sup>For the special grade Glutinous milled rice, see §868.315(e).

<sup>4</sup>Grades U.S. No. 1 to U.S. No. 4, inclusive, shall contain not more than 3.0 percent of heat-damaged kernels, kernels damaged by heat and/or parboiled kernels in nonparboiled rice.

<sup>5</sup>Grades U.S. No. 1 to U.S. No. 4, inclusive, shall contain not more than 1.0 percent of material passing through a 30 sieve.

[56 FR 55981, Oct. 31, 1991]

**§868.313 Grades and grade requirements for the class Brewers Milled Rice. (See also §868.315.)**

Grade	Maximum limits of-- Paddy kernels and seeds		Color requirements <sup>1</sup>	Minimum milling requirements <sup>2</sup>
	Total (singly or combined) (Percent)	Objectionable seeds (Percent)		
U.S. No.1 <sup>3,4</sup>	0.5	0.05	Shall be white or creamy	Well milled.
U.S. No.2 <sup>3,4</sup>	1.0	0.1	May be slightly gray	Well milled
U.S. No.3 <sup>3,4</sup>	1.5	0.2	May be light gray or slightly rosy	Reasonably well milled
U.S. No.4 <sup>3,4</sup>	3.0	0.4	Gray or rosy	Reasonably well milled
U.S. No.5 <sup>3,4</sup>	5.0	1.5	Dark gray or very rosy	Reasonably well milled

**U.S. Sample grade:**

U.S. Sample grade shall be milled rice of this class which: (a) does not meet the requirements for any of the grades from U.S. No. 1 to U.S. No. 5, inclusive; (b) contains more than 15.0 percent of moisture; (c) is musty or sour, or heating; (d) has any commercially objectionable foreign odor; (e) has a badly damaged or extremely red appearance; (f) contains more than 0.1 percent of foreign material; (g) contains more than 15.0 percent of broken kernels that will pass through a 2½ sieve; (h) contains two or more live or dead weevils or other insects, insect webbing, or insect refuse; or (i) is otherwise of distinctly low quality.

<sup>1</sup>For the special grade Parboiled milled rice, see §868.315(c).

<sup>2</sup>For the special grade Undermilled milled rice, see §868.315(d).

<sup>3</sup>Grades U.S. No. 1 to U.S. No. 4, inclusive, shall contain not more than 3.0 percent of heat-damaged kernels, kernels damaged by heat and/or parboiled kernels in nonparboiled rice.

<sup>4</sup>Grades U.S. No. 1 to U.S. No. 4, inclusive, shall contain not more than 1.0 percent of material passing through a 30 sieve. This limit does not apply to the special grade Granulated brewers milled rice.

[42 FR 40869, Aug. 12, 1977, as amended at 54 FR 21401, May 18, 1989]

### **§868.314 Grade designations.**

(a) The grade designation for all classes of milled rice, except Mixed Milled Rice, shall include in the following order: (1) The letters "U.S."; (2) the number of the grade or the words "Sample grade", as warranted; (3) the words "or better," when applicable and requested by the applicant prior to inspections; (4) the class; and (5) each applicable special grade (see §868.316).

(b) The grade designation for the class Mixed Milled Rice shall include, in the following order: (1) The letters "U.S."; (2) the number of the grade or the words "Sample grade", as warranted; (3) the words "or better," when applicable and requested by the applicant prior to inspection; (4) the class; (5) each applicable special grade (see §868.316); (6) the percentage of whole kernels of each type in the order of predominance and when applicable; (7) the percentage of broken kernels of each type in the order of predominance; and (8) the percentage of seeds and foreign material.

*Note: Broken kernels other than long grain, in Mixed Milled Rice, shall be certificated as "medium or short grain."*

## **SPECIAL GRADES, GRADE REQUIREMENTS, AND GRADE DESIGNATIONS**

### **§868.315 Special grades and special grade requirements.**

A special grade, when applicable, is supplemental to the grade assigned under §868.314. Such special grades for milled rice are established and determined as follows:

(a) Coated Milled Rice. Coated milled rice shall be rice which is coated, in whole or in part, with substances that are safe and suitable as defined in the regulation issued pursuant to the Federal Food, Drug, and Cosmetic Act at 21 CFR 130.3(d).

(b) Granulated brewers milled rice. Granulated brewers milled rice shall be milled rice which has been crushed or granulated so that 95.0 percent or more will pass through a 5 sieve, 70.0 percent or more will pass through a 4 sieve, and not more than 15.0 percent will pass through a 2 1/2 sieve.

(c) Parboiled milled rice. Parboiled milled rice shall be milled rice in which the starch has been gelatinized by soaking, steaming, and drying. Grades U.S. No. 1 to U.S. No. 6, inclusive, shall contain not more than 10.0 percent of ungelatinized kernels. Grades U.S. No. 1 and U.S. No. 2 shall contain not more than 0.1 percent, grades U.S. No. 3 and U.S. No. 4 not more than 0.2 percent, and grades U.S. No. 5 and U.S. No. 6 not more than 0.5 percent of nonparboiled rice. If the rice is: (1) Not distinctly colored by the parboiling process, it shall be considered "Parboiled Light"; (2) distinctly but not materially colored by the parboiling process, it shall be considered "Parboiled"; (3) materially colored by the parboiling process, it shall be considered "Parboiled Dark." The color levels for "Parboiled Light," "Parboiled," and "Parboiled Dark" shall be in accordance with the interpretive line samples for parboiled rice.

*Note: The maximum limits for "Chalky kernels," "Heat-damaged kernels," "Kernels damaged by heat", and the "Color requirements" in §§868.310, 868.311, 868.312, and 868.313 are not applicable to the special grade "Parboiled milled rice."*



(d) Undermilled milled rice. Undermilled milled rice shall be milled rice which is not equal to the milling requirements for "well milled," and "reasonably well milled." rice (see §868.306). Grades U.S. No. 1 and U.S. No. 2 shall contain not more than 2.0 percent, grades U.S. No. 3 and U.S. No. 4 not more than 5.0 percent, grade U.S. No. 5 not more than 10.0 percent, and grade U.S. No. 6 not more than 15.0 percent of well-milled kernels. Grade U.S. No. 5 shall contain not more than 10.0 percent of red rice and damaged kernels (singly or combined) and in no case more than 6.0 percent of damaged kernels.

*Note: The "Color and milling requirements" in §§868.310, 868.311, 868.312, and 868.313 are not applicable to the special grade "Undermilled milled rice."*

(e) Glutinous milled rice. Glutinous milled rice shall be special varieties of rice (*Oryza sativa* L. glutinosa) which contain more than 50 percent chalky kernels. For long grain, medium grain, and short grain milled rice, grade U.S. No. 1 shall contain not more than 1.0 percent of nonchalky kernels, grade U.S. No. 2 not more than 2.0 percent of nonchalky kernels, grade U.S. No. 3 not more than 4.0 percent of nonchalky kernels, grade U.S. No. 4 not more than 6.0 percent of nonchalky kernels, grade U.S. No. 5 not more than 10.0 percent of nonchalky kernels, and grade U.S. No. 6 not more than 15.0 percent of nonchalky kernels. For second head milled rice, grade U.S. No. 1 shall contain not more than 4.0 percent of nonchalky kernels, grade U.S. No. 2 not more than 6.0 percent of nonchalky kernels, grade U.S. No. 3 not more than 10.0 percent of nonchalky kernels, grade U.S. No. 4 not more than 15.0 percent of nonchalky kernels, and grade U.S. No. 5 not more than 20.0 percent of nonchalky kernels. For screenings milled rice, there are no grade limits for percent of nonchalky kernels. For brewers milled rice, the special grade "Glutinous milled rice" is not applicable.

*Note: The maximum limits for "Chalky kernels," shown in §§868.310, 868.311, and 868.312 are not applicable to the special grade "Glutinous milled rice."*

(f) Aromatic milled rice. Aromatic milled rice shall be special varieties of rice (*Oryza sativa* L. scented) that have a distinctive and characteristic aroma; e.g., basmati and jasmine rice.

*(Secs. 203, 205, 60 Stat. 1087, 1090 as amended; 7 U.S.C. 1622, 1624) [42 FR 40869, Aug. 12, 1977; 42 FR 64356, Dec. 23, 1977, as amended at 48 FR 24859, June 3, 1983; 54 FR 21403, 21407, May 18, 1989; 56 FR 55981, Oct. 31, 1991; 58 FR 68016, Dec. 23, 1993]*

#### **§868.316 Special grade designation.**

The grade designation for coated, granulated brewers, parboiled, undermilled, glutinous, or aromatic milled rice shall include, following the class, the word(s) "Coated," "Granulated," "Parboiled Light," "Parboiled," "Parboiled Dark," "Undermilled," "Glutinous," or "Aromatic," as warranted, and all other information prescribed in §868.314.

*[58 FR 68016, Dec. 23, 1993]*