

(Unofficial translation)

**Ministry of Commerce Regulation  
On the Standards of the Pathumthani Fragrant Rice  
B.E. 2547 (2004)**

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Whereas it is deemed appropriate that the Standards of the Pathumthani Fragrant Rice would benefit Thailand's rice export to become accepted and acclaimed in the foreign markets, the Ministry of Commerce thereby instituted its Regulation as follows:

Article 1. This regulation is called "Ministry of Commerce Regulation On the Standards of the Pathumthani Fragrant Rice B.E. 2547 (2004)".

Article 2. The details of the Standards of the Pathumthani Fragrant Rice are stated in the Annex of this Regulation.

This regulation is effective from the date following its publication in the Government Gazette onwards.

Instituted on 4 October B.E.2547 (2004)

(Signed)  
(Mr. Watana Muangsook)  
Minister of Commerce

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**Annex to the Notification of the Ministry of Commerce**  
**Re: Standards of Thai Pathumthani Fragrant Rice, B.E. 2547 (2004)**

**Thai Pathumthani Fragrant Rice Standards**

**Clause 1. Definitions :**

- (1) "Thai Pathumthani Fragrant Rice" means Cargo rice and White rice derived from paddy non-glutinous rice of the fragrant rice varieties which are not sensitive to photo period and cultivated in Thailand, and which are certified by the Department of Agriculture, the Ministry of Agriculture and Cooperatives as being Pathumthani 1 variety with a natural fragrant aroma depending on its age, and when cooked, such rice kernels shall have a tender texture;
- (2) "Amylose" means a kind of starch existing in the rice kernels. When cooked, the rice kernel's texture varies according to the amount of amylose;
- (3) "Rice" means any form of non-glutinous and glutinous rice (*Oryza sativa* L.);
- (4) "Paddy" means rice that has not yet been husked;
- (5) "Cargo rice" (Loonzain rice, Brown rice, Husked rice) means rice that has only been husked;
- (6) "White rice" means rice obtained by removing bran from Cargo non-glutinous rice;
- (7) "White glutinous rice" means rice obtained by removing bran from Cargo glutinous rice;
- (8) "Parts of rice kernels" means each part of the whole kernel that is divided lengthwise into 10 equal parts;
- (9) "Whole kernels" means whole rice kernels without any broken part and includes kernels which have at least 9 parts;
- (10) "Head rice" means broken rice kernels with lengths greater than those of brokens but less than those of whole kernels, and includes split kernels that retain at least 80 per cent of the whole kernel;
- (11) "Brokens" means broken rice kernels whose lengths are at least 2.5 parts of a whole kernel but less than the length of head rice, and includes split kernels that retain less than 80% of the whole kernel;
- (12) "Small brokens C1" means small broken rice kernels that pass through round hole metal sieve No. 7;
- (13) "Undermilled kernels" means rice kernels milled at a degree below that prescribed for each kind of rice;
- (14) "Red kernels" means rice kernels that are wholly or partly covered by red bran;

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- (15) "Yellow kernels" means rice kernels where parts of which have turned into an apparent yellow;
  - (16) "Chalky kernels" means non-glutinous rice kernels which have a chalk-like opaque area covering at least 50% of the kernel;
  - (17) "Damaged kernels" means rice kernels that are damaged as apparent to the naked eyes due to moisture, heat, fungi, insects or others;
  - (18) "Underdeveloped kernels" means rice kernels that have not developed normally and are flat;
  - (19) "Immature kernels" means rice kernels that are light green, obtained from immature paddy;
  - (20) "Other seeds" means seeds of other plants which are not rice kernels;
  - (21) "Foreign matter" means other things which are not rice and includes rice husk and bran detached from rice kernels;
  - (22) "Milling degree" means the degree to which rice is milled;
  - (23) "Extra well milled" means the removal of bran entirely to the extent that the rice kernel has an especially fine appearance;
  - (24) "Well milled" means the removal of bran entirely to the extent that the rice kernel has a fine appearance;
  - (25) "Reasonable well milled" means the removal of most of the bran to the extent that the rice kernel has a reasonably fine appearance;
  - (26) "Ordinarily milled" means the removal of some portion of bran;
  - (27) "Sieve No. 7" means a round hole metal sieve that is 0.79 mm. (0.031 inch) thick and with hole diameter of 1.75 mm. (0.069 inch);
  - (28) "Percent" means percentage by weight.

**Clause 2.** Thai Pathumthani Fragrant Rice Standards shall be divided into the following 2 types:

- (1) White rice;
- (2) Cargo rice.

**Clause 3.** Thai Pathumthani Fragrant Rice shall be classified into 2 categories according to its purity:

- (1) Prime Quality – contains no less than 90 percent Thai Pathumthani Fragrant Rice
- (2) Superb Quality – contains no less than 80 percent Thai Pathumthani Fragrant Rice

**Clause 4.** Standardized Thai Pathumthani Fragrant Rice of white rice type shall be divided into 6 kinds as follows:

- (1) White rice 100%;
- (2) White rice 5%;
- (3) White rice 10%;
- (4) White rice 15%;
- (5) White broken rice A 1 Extra Super;
- (6) White broken rice A 1 Super.

**Clause 5.** Standardized Thai Pathumthani Fragrant Rice of cargo rice type shall be divided into 4 kinds as follows:

- (1) Cargo rice 100%;
- (2) Cargo rice 5%;
- (3) Cargo rice 10%;
- (4) Cargo rice 15%.

**Clause 6.** All types, categories and kinds of Thai Pathumthani Fragrant Rice under clause 2, clause 3, clause 4 and clause 5 shall conform to the following standards:

- (1) moisture content not exceeding 14.0 percent;
- (2) having the general characteristics of a long grain rice with the kernel sizes as follows:
  - the average length of the whole kernel without any broken part shall not be less than 7.0 mm.;
  - the ratio of the average length to the average width of the whole kernel without any broken part shall not be less than 3.2:1;
- (3) having the chemical properties as follows:
  - amylose content shall not be less than 16.0% and shall not exceed 20.0% at the moisture content of 14.0%;
  - alkali spreading value of white rice kernels at level 6-7.

**Clause 7.** The standards for Thai Pathumthani Fragrant Rice shall be prescribed for the types and kinds of white rice under clause 4 as follows:

- (1) White rice 100%  
must have grain composition and milling degree as follows:  
Grain composition comprising of:
  - whole kernels by not less than 60.0 percent;
  - broken with length from 5.0 parts but not reaching 8.0 parts

- of the brokens, no more than 4.5 percent may have length of less than 5 parts and no more than 0.5 percent may not pass through the No.7 sieve, and may not contain more than 0.1 percent Small brokens C1;

- the remainder being Head rice with length from 8.0 parts onward.

Rice and other matters that may be present:

- yellow kernels not exceeding 0.2%
- chalky kernels not exceeding 6.0%;
- damaged kernels not exceeding 0.25%
- white glutinous rice not exceeding 1.5%;
- paddy not exceeding 7 grains per 1 kg. of rice.
- underdeveloped kernels, immature kernels, other seeds and foreign matter either singly or combined not exceeding 0.2%.

Milling degree: Extra well milled.

(2) White rice 5%

must have grain composition and milling degree as follows:

Grain composition comprising of:

- whole kernels by not less than 60.0%;
- brokens, with length from 3.5 parts but not reaching 7.5 parts.
- of the brokens, no more than 7.0% may have the length not reaching 3.5 parts, no more than 0.5% may not pass through sieve No. 7 and not more than 0.1% small white brokens C1;

- the remainder shall be Head rice with length from 7.5 parts onward.

Rice and matters that may be present:

- red kernels and/or undermilled kernels not exceeding 2.0%;
- yellow kernels not exceeding 0.5%;
- chalky kernels not exceeding 6.0%;
- damaged kernels not exceeding 0.25%;
- white glutinous rice not exceeding 1.5%;
- paddy not exceeding 10 grains per 1 kilogram of rice;
- underdeveloped kernels, immature kernels, other seeds and foreign matter either singly or combined not exceeding 0.3%.

Milling degree: Well milled

(3) White rice 10%

shall have grain composition and milling degree as follows:

Grain composition comprising of:

- whole kernels by not less than 55.0%;
- brokens, with length from 3.5 parts but not reaching 7.0 parts.

- of the broken, no more than 12.0% may have the length not reaching 3.5 parts, no more than 0.7% may not pass through sieve No. 7 and not more than 0.3% small white broken C1;

- the remainder shall be Head rice with length from 7.0 parts onward.

Rice and matters that may be present:

- red kernels and/or undermilled kernels not exceeding 2.0%;

- yellow kernels not exceeding 1.0%;

- chalky kernels not exceeding 7.0%;

- damaged kernels not exceeding 0.5%;

- white glutinous rice not exceeding 1.5%;

- paddy not exceeding 15 grains per 1 kilogram of rice;

- underdeveloped kernels, immature kernels, other seeds

and foreign matter either singly or combined not exceeding 0.4%.

Milling degree: Well milled

(4) White rice 15%

must have grain composition and milling degree as follows:

Grain composition comprising of:

- whole kernels by not less than 55.0%;

- broken having length as from 3.0 parts but not reaching 6.5 parts by not more than 17.0%; of this quantity there may be not more than 2.0% broken having the length not reaching 3.0 parts and not passing through sieve No. 7 and not more than 0.5% small white broken C 1;

- the remainder shall be Head rice having length from 6.5 parts onward.

Rice and matters that may be present:

- red kernels and/or undermilled kernels not exceeding 5.0%;

- yellow kernels not exceeding 1.0%;

- chalky kernels not exceeding 7.0%;

- damaged kernels not exceeding 1.0%;

- white glutinous rice not exceeding 2.0%;

- paddy not exceeding 15 grains per 1 kilogram of rice;

- underdeveloped kernels, immature kernels, other seeds and

foreign matter either singly or combined not exceeding 0.4%.

Milling degree: Reasonably well milled

(5) White broken rice A 1 Extra Super

shall be rice obtained from milling white rice 100% and shall have the grain composition as follows:

Grain composition comprising of:

- brokens having length not reaching 5.0 parts and not passing through sieve No. 7 by not more than 10.0%;

- the remainder shall be brokens having length from 5.0 parts onward;

- of the whole quantity there may be not more than 15.0% whole kernels and not more than 1.0% small white brokens C 1.

Rice and matters that may be present:

- white glutinous rice not exceeding 1.5%; of this quantity there may be not more than 0.5% small white glutinous brokens C 1;

- foreign matters not exceeding 0.5%.

(6) White broken rice A 1 Super

shall be rice obtained from milling white rice 100%, white rice 5% and white rice 10%, and shall have the grain composition as follows:

Grain composition comprising of:

- brokens having length not reaching 6.5 parts and not passing through sieve No. 7 for the entire quantity; of this quantity there may be not more than 15.0% brokens having the length as from 6.5 parts onward and whole kernels combined and not more than 5.0% small white brokens C 1.

Rice and matters that may be present:

- white glutinous rice not exceeding 1.5%; of this quantity there may be not more than 0.5% small white glutinous brokens C 1;

- foreign matters not exceeding 0.5%.

**Clause 8.** The standards for Thai Pathumthani Fragrant Rice shall be prescribed for the types and kinds of cargo rice under clause 5 as follows:

(1) Cargo rice 100%

shall have the grain composition as follows:

Grain composition comprising of:

- whole kernels by not less than 80.0%;  
- brokens having length as from 5.0 parts but not reaching 8.0 parts by not more than 4.5%;

- the remainder shall be Head rice having length from 8.0 parts onward.

Rice and matters that may be present:

- red kernels not exceeding 1.5%

- yellow kernels not exceeding 0.75%

- chalky kernels not exceeding 6.0%

- damaged kernels not exceeding 0.75%

- white glutinous rice not exceeding 1.5%
- paddy not exceeding 1.0%
- underdeveloped kernels, immature kernels, other seeds and foreign matter either singly or combined not exceeding 5.0%.

(2) Cargo rice 5%

shall have the grain composition as follows:

Grain composition comprising of:

- whole kernels by not less than 75.0%;
- brokens having length as from 3.5 parts but not reaching 7.5 parts by not more than 7.0 %;
- the remainder shall be Head rice having length from 7.5 parts onward.

Rice and matters that may be present:

- red kernels not exceeding 2.0 %;
- yellow kernels not exceeding 1.0 %;
- chalky kernels not exceeding 6.0%;
- damaged kernels not exceeding 1.0 %;
- white glutinous rice not exceeding 1.5%;
- paddy not exceeding 1.0%;
- underdeveloped kernels, immature kernels, other seeds and foreign matter either singly or combined not exceeding 6.0%.

(3) Cargo rice 10%

shall have the grain composition as follows:

Grain composition comprising of:

- whole kernels by not less than 70.0%;
- brokens having the length as from 3.5 parts but not reaching 7.0 parts by not more than 12.0%;
- the remainder shall be Head rice having length from 7.0 parts onward.

Rice and matter that may be present:

- red kernels not exceeding 2.0%
- yellow kernels not exceeding 1.0%
- chalky kernels not exceeding 7.0%
- damaged kernels not exceeding 1.0%
- white glutinous rice not exceeding 1.5%
- paddy not exceeding 2.0%
- underdeveloped kernels, immature kernels, other seeds and foreign matter either singly or combined not exceeding 7.0%

(4) Cargo rice 15%

shall have the grain composition as follows:

Grain composition comprising of:

- whole kernels by not less than 65.0%;
- broken kernels having length as from 3.0 parts but not reaching 6.5 parts by not more than 17.0%;
- the remainder shall be Head rice having length from 6.5 parts onward.

Rice and matters that may be present:

- red kernels not exceeding 5.0%;
- yellow kernels not exceeding 1.0%;
- chalky kernels not exceeding 7.0%;
- damaged kernels not exceeding 1.5%;
- white glutinous rice not exceeding 2.5%;
- paddy not exceeding 2.0%;
- underdeveloped kernels, immature kernels, other seeds and foreign matter either singly or combined not exceeding 8.0%.

**Clause 9.** The mixed Pathumthani Fragrant Rice, with more than 20 percent other types of rice shall not be regarded as Pathumthani Fragrant Rice in accordance with this standard.

**Clause 10.** In the case where standardized Thai Pathumthani Fragrant Rice is exported, the sack or in any other container, whether large or small, must be clearly marked in English letters; "THAI PATHUMTHANI FRAGRANT RICE" as well as stating in English its type, kind and quality on the container. The small container in particular must have letters that are large enough so that the statement is clearly visible.

(4) Cargo rice 15%

shall have the grain composition as follows:

Grain composition comprising of:

- whole kernels by not less than 65.0%;
- brokens having length as from 3.0 parts but not reaching 6.5 parts by not more than 17.0%;
- the remainder shall be Head rice having length from 6.5 parts onward.

Rice and matters that may be present:

- red kernels not exceeding 5.0%;
- yellow kernels not exceeding 1.0%;
- chalky kernels not exceeding 7.0%;
- damaged kernels not exceeding 1.5%;
- white glutinous rice not exceeding 2.5%;
- paddy not exceeding 2.0%;
- underdeveloped kernels, immature kernels, other seeds and foreign matter either singly or combined not exceeding 8.0%.

**Clause 9.** The mixed Pathumthani Fragrant Rice, with more than 20 percent other types of rice shall not be regarded as Pathumthani Fragrant Rice in accordance with this standard.

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**NOTE :** The Official Ministry s Notification (Thai Version) is Authentic and Valid in case of dispute.