



**THAI AGRICULTURAL STANDARD**

**TAS 7-2006**

**LITCHI**

**National Bureau of Agricultural Commodity and Food Standards  
Ministry of Agriculture and Cooperatives**

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**National Bureau of Agricultural Commodity and Food Standards**

**Ministry of Agriculture and Cooperatives**

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Litchi or lychee is an agricultural commodity that Thailand is a significant producer and exporter. In order to have Thai litchis better accepted by both domestic and international trade in term of food safety for the consumer and export promotion, the Ministry of Agriculture and Cooperatives deems it proper to establish a standard for litchi.

The provisions of this standard are based upon information from a study project on significant quality indices for identifying quality criteria, quality classification and determining size code of the food crop of National Bureau of Agricultural Commodity and Food Standards which has been cooperated in the operation by Department of Agriculture, Ministry of Agriculture and Cooperatives, and guideline of the following document :

FAO/WHO. 1995 . CODEX STANDARD For LITCHI (CODEX STAN 196-1995). Joint FAO/WHO Food Standards Programme, FAO, Rome. 6p.

***Remark:***

The standard title has been revised from “Thai Agricultural Commodity and Food Standard (TACFS X-XXXX)” to “Thai Agricultural Standard (TAS X-XXXX)” in accordance with the application of the Agricultural Standards Act B.E. 2551 (2008).



**NOTIFICATION OF THE NATIONAL COMMITTEE ON  
AGRICULTURAL COMMODITY AND FOOD STANDARDS  
SUBJECT: THAI AGRICULTURAL COMMODITY AND FOOD STANDARD:  
LITCHI  
B.E. 2549 (2006)**

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The resolution of the 1/2546 session of the National Committee on Agricultural Commodity and Food Standards dated 8 June B.E. 2549 (2006) endorsed the Thai Agricultural Commodity and Food Standard entitled Litchi. This standard would be of benefits for quality improvement, facilitating trade and protecting consumers.

By virtue of the Cabinet Resolution on Appointment and Authorization of the National Committee on Agricultural Commodity and Food Standards dated 19 November B.E. 2545 (2002), the Notification on Thai Agricultural Commodity and Food Standard entitled Litchi is hereby issued as voluntary standard, the details of which are attached herewith.

Notified on 31 July B.E. 2549 (2006)

Khunying Sudarat Keyuraphan

Minister of Agriculture and Cooperatives

Chairperson of the National Committee on Agricultural Commodity and Food Standards

# THAI AGRICULTURAL STANDARD

## LITCHI

### 1 DEFINITION OF PRODUCE

This standard applies to commercial varieties of litchi such as Jakkrapad, Honghuey, Ohiah, Gimjeng and Korm grown from *Litchi chinensis* Sonn. of Sapindaceae family for fresh consumption.

### 2 PROVISIONS CONCERNING QUALITY

#### 2.1 MINIMUM REQUIREMENTS

2.1.1 In all classes, subject to the special provisions for each class and the tolerances allowed the litchi quality must be :

- whole ;
- not decay ;
- clean and practically free from visible foreign matter ;
- practically free of pests affecting the general appearance of the produce ;
- practically free of damage caused by pests ;
- free of damage caused by low and/or high temperature ;
- free of foreign smell<sup>1</sup> and/or abnormal taste.

2.1.2 Litchi fruits must have been carefully harvested in accordance to the harvesting process, postharvest handling, and transport in order to obtain the fruit quality proper of the variety and the production location.

Litchi must be sufficiently developed and mature. Litchi skin colour may be pink, red or dark red in the case of non-sulfur dioxide fumigated fruits. For sulfur dioxide treated litchis the skin may be pale yellow to pink depending on variety.

#### 2.2 CLASSIFICATION

Litchis are classified into three classes :

##### 2.2.1 Extra Class

Litchis in this class must be of superior quality. They must have the characteristics of the variety, be free of defects, with the exception of very slight superficial defects, provided that these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

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<sup>1</sup> excluding smell derived from food additives in section 7.

### 2.2.2 Class I

Litchis in this class must be of good quality and characteristic of the variety. Slight defects of shape, colour and skin are admissible provided they do not affect the general appearance of the produce, its quality, the keeping quality and presentation in the package that the total slight skin defect area does not exceed  $0.25 \text{ cm}^2$  / fruit.

### 2.2.3 Class II

This class includes litchis which do not qualify for the higher classes with characteristics of the variety but satisfy the minimum requirements, and the fruits retain their quality, the keeping quality and presentation in the package that the total skin defect area does not exceed  $0.5 \text{ cm}^2$  / fruit.

## 3 PROVISIONS CONCERNING SIZING

Size is determined by the maximum equatorial diameter as in table 1.

**Table 1. Provisions of size codes and sizes of different litchi varieties.**

Size Code	Jakkrapad		Honghuay		Ohiah		Gimjeng		Korm	
	Number of fruits/kg.	Diameter (mm.)	Number of fruits/kg.	Diameter (mm.)	Number of fruits/kg.	Diameter (mm.)	Number of fruits/kg.	Diameter (mm.)	Number of fruits/kg.	Diameter (mm.)
1	≤ 18	>45	≤ 35	>35	≤ 44	>34	≤ 44	>33	≤ 55	>32
2	19 - 25	>41 - 45	36 - 40	>33 - 35	45 - 50	>33 - 34	45 - 50	>32 - 33	56 - 65	>30 - 32
3	26 - 30	38 - 41	41 - 50	30 - 33	51 - 55	32 - 33	51 - 55	31 - 32	66 - 77	27 - 29

Classification and provisions concerning sizing of this standard can be implemented in the business by combining them to be implemented jointly in order to stipulate trading classes that the trade partners may name the trading classes differently. This depends on the trade partners' requirements or according to conditions due to seasons.

## 4 PROVISIONS CONCERNING TOLERANCES

Quality and size tolerances are allowed in each package for produce not satisfying the requirements of the class indicated.

### 4.1 QUALITY TOLERANCES

#### 4.1.1 Extra Class

Five percent by number or weight of litchis not satisfying the requirements of this class, but meeting those of class I.

#### 4.1.2 Class I

Ten percent by number or weight of litchis not satisfying the requirements of this class, but meeting those of Class II.



### 4.1.3 Class II

Ten percent by number or weight of litchis satisfying neither the requirements of this class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

## 5 PROVISIONS CONCERNING PRESENTATION

### 5.1 UNIFORMITY

The contents of each package must be uniform in color, quality and size. The visible part of the contents of the package must be representative of the entire contents.

### 5.2 PACKAGING

Litchis must be packed in such a way as to protect the produce properly. The materials used inside the package must be new, clean and of a quality such as to avoid causing any damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labeling has been done with non-toxic ink or glue.

#### 5.2.1 Description of Containers

The containers shall meet the quality, hygiene, and resistance characteristics to ensure suitable handling, shipping and preserving of the litchis. Packages must be free of all foreign matters and smell.

### 5.3 PRESENTATION

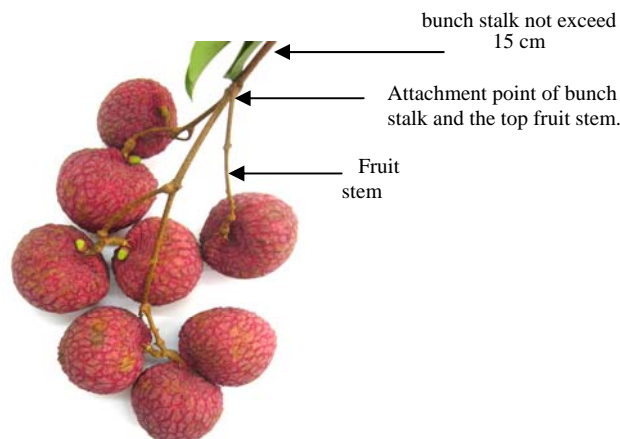
The litchis are presented under one of the following forms.

#### 5.3.1 Individually

A litchi fruit which is presented in individual must have the pedicel intact with a length not exceed 2 mm.

#### 5.3.2 In bunches

There must be more than 1 fruit per bunch, and the length of the bunch stalk to the attachment point of the top fruit stem must not exceed 15 cm. In this particular not more than 5% by count or weight of dropped-off abscised fruits during transportation is allowed per package.



**Figure 1** The length of the bunch stalk to the attachment point of the top fruit stem.

**6 MARKING OR LABELLING****6.1 CONSUMER PACKAGES**

Each package shall bear the following particulars, legibly marked, and without false or deceptive information.

**6.1.1 Nature of Produce**

If the produce is not visible from the outside, each package shall be labelled with the name of the produce "Litchis" and may be labelled as to name of the variety and/or commercial type, including specified characteristic of "individually" or "in bunches".

**6.1.2 Date of packing****6.1.3 Net weight in metric system****6.1.4 Distributor information**

Name and address of the producer or packer for Litchis produced in the country. Name and address of importer and producing country for imported Litchis depending on cases.

**6.1.5 Origin of produce**

Country of origin, except it is produced for domestic distribution.

**6.2 NON-RETAIL CONTAINERS**

Each package must bear the following particulars, in the documents accompanying the shipment, in the label, or on package, with legibly and indelibly marked.

**6.2.1 Identification**

Name and address of the producer for Litchis produced in the country. Name and address of importer and producing country for imported Litchis depending on cases.

For Litchies produced in the country may identify the name and the producer head office address and cargo code (If any).

**6.2.2 Nature of produce**

Name of the produce "Litchis" and/or name of the "Variety", including clearly specified characteristics of "Individually" or "in bunches" shall be labeled, if the contents are not visible from the outside of the package.

**6.2.3 Origin of Produce**

Country of origin and/or province where grown. If the afore-mention data are not stated, it may lead to misunderstanding or deceiving the consumers.

**6.2.4 Commercial Identification**

- (1) Class;
- (2) Size
- (3) Net weight in metric system.

**6.3 LANGUAGE**

Label of produce must be in Thai Language. Produce label for export can be in any language.

#### **6.4 OFFICIAL INSPECTION MARK OR CERTIFICATION MARK**

Comply with the provisions and condition of the inspection or certification agency recognized by Ministry of Agriculture and Cooperatives of Thailand.

#### **7 FOOD ADDITIVE**

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Food Additives.

#### **8 CONTAMINANTS**

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Contaminant.

#### **9 PESTICIDE RESIDUES**

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Pesticide Residues.

#### **10 HYGIENE**

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Hygiene. Harvest and handling of various steps including storage and transport of Litchis must be carried out hygienically in order to prevent contamination which will be harmful to consumers.

#### **11 METHODS OF ANALYSIS AND SAMPLING**

Comply with the provisions of relevant regulations and the Thai Agricultural Standard on Methods of Analysis and Sampling.

## ANNEX A

## UNIT

The units and symbols used in this standard and the units recognized by the International System of Units (*le Système International d'Unités*) or SI are as follows:

<b>Measurement</b>	<b>Unit</b>	<b>Symbols</b>
Area	square centimeter	cm <sup>2</sup>
Length	centimeter	cm
Length	millimeter	mm
	milligram/kilogram	mg/kg