



**THAI AGRICULTURAL STANDARD**

**TAS 16-2010**

**GUAVA**

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

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# **GUAVA**

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

**Ministry of Agriculture and Cooperatives**

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### Technical Committee on the Elaboration of Thai Agricultural Standard on Guava

- |     |   |                      |
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Guava fruit is an agricultural commodity that Thailand has the potential to produce and export. Establishment of guava standard is important for promoting and developing of quality and safety as well as gaining recognition from domestic and international markets. The Agricultural Standards Committee deems it necessary to establish an agricultural standard on Guava.

The standard is based on the information of the following document:

CODEX STAN 215-1999. Codex Standard for Guavas. Joint FAO/WHO Food Standard Programme, FAO, Rome.



**NOTIFICATION OF THE MINISTRY OF AGRICULTURE AND COOPERATIVES**

**SUBJECT: THAI AGRICULTURAL STANDARD:**

**GUAVA**

**UNDER THE AGRICULTURAL STANDARDS ACT B.E. 2551 (2008)**

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Whereas the Agricultural Standards Committee deems it necessary to establish an agricultural standard on Guava as a voluntary standard in accordance with the Agricultural Standards Act B.E. 2551 (2008) to promote such agricultural commodity to meet its quality, standard and safety.

By virtue of Section 5, Section 15 and Section 16 of the Agricultural Standards Act B.E. 2551(2008), the Minister of Agriculture and Cooperatives hereby issues this Notification on Establishment of Agricultural Standard: Guava (TAS 16-2010) as a voluntary standard, details of which are attached herewith.

Notified on 4 October B.E. 2553 (2010)

(Mr. Theera Wongsamut)

Minister of Agriculture and Cooperatives

## THAI AGRICULTURAL STANDARD

### GUAVA

#### 1. SCOPE

This standard applies to commercial varieties of guava grown from *Psidium guajava* L. of the Myrtaceae family for fresh consumption.

#### 2. QUALITY

##### 2.1 Minimum Requirements

2.1.1 In all classes, guava, in exception of the specific requirements of each class and the allowable tolerances, shall be as follows.

- (1) whole
- (2) firm
- (3) free of rotting or quality deterioration and free of bruises that make it unfit for consumption
- (4) clean and free of any visible foreign matter
- (5) free of pests affecting the general appearance of the produce
- (6) free of damage caused by pests
- (7) free of abnormality from external moisture, excluding condensation following removal from cold storage
- (8) free of any foreign smell and/or taste

2.1.2 Guava shall be carefully picked at appropriate degree of ripening development<sup>1/</sup>, as well as post-harvest handled, packed and transported so that guava is acceptable at the place of destination.

##### 2.2 CLASSIFICATION

Guava is classified into 3 classes as follows:

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<sup>1/</sup> appropriate degree of ripening development means the maturity of fruit is required by consumers depending on variety and producing location e.g. export market requires fruits of 70% to 80% maturity, while the domestic prefers 80% to 90% maturity.

### 2.2.1 “Extra” Class

Guava in this class shall be of superior quality. They shall be characteristic of the variety with stem attached. They shall be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the keeping quality and presentation in the package.

### 2.2.2 Class I

Guava in this class shall be of good quality. They shall be characteristic of the variety with stem attached. They may have slight defects, provided these do not affect the general appearance of the produce, the keeping quality and presentation in the package as follows:

- (1) slight defects in shape and colour
- (2) slight defects on the skin due to rubbing or sunburns and blemishes not exceeding 5% of the total surface area of guava

The defects shall not, in any case, affect the flesh of the fruit.

### 2.2.3 Class II

Guava in this class includes fruits which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1. The following defects may be allowed:

- (1) defects in shape and colour
- (2) defects on the skin due to rubbing or sunburns and blemishes not exceeding 10% of the total surface area of guava

The defects shall not, in any case, affect the general appearance of the produce, the keeping quality and presentation in the package including the flesh of the fruit.

## **3. SIZING**

Fruit size is determined by weight as the followings:

**Table 1 Size of Guava<sup>2/</sup>**  
(Section 3)

Size Code	Weight per Fruit (g)
1	>450
2	>350 to 450
3	>250 to 350
4	>200 to 250
5	>150 to 200
6	100 to 150

*Note: The requirements concerning classification and sizing according to this standard are normally combined to stipulate trade classification. Trade partners may name the trade classification differently depending on their requirements or seasonal limitations.*

#### **4. TOLERANCES**

Tolerances according to quality and sizes are allowed in each package. For unsatisfied guava quality and sizes of the indicated class, the allowable tolerances shall be as follows:

##### **4.1 Quality tolerances**

###### **4.1.1 “Extra” class**

Five percent by number or weight of guava not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of Class I.

###### **4.1.2 Class I**

Ten percent by number or weight of guava not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of Class II.

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<sup>2/</sup> Data are obtained from the collaborative project with Kasetsart University on Important Characteristic Indices for Quality Classification and Size Code Determination of Fruits and Vegetables (Papayas, Java apples and Guavas) of the National Bureau of Agricultural Commodity and Food Standards.



#### 4.1.3 Class II

Fifteen percent by number or weight of guava satisfying neither the requirements of Class II nor the minimum requirements in section 2.1, with the exception of produce affected by rotting, bruising or any other deterioration rendering it unfit for consumption.

#### 4.2 Size tolerances

For all size code, ten percent by number or weight of guava corresponding to the size code immediately above or below that indicated on the package.

### **5. PACKAGING**

#### 5.1 Uniformity

The contents of each package shall be uniform and contain only guavas of the same variety, quality, size and colour. The visible part of the package shall represent the entire package or lot.

#### 5.2 Packaging

Guavas shall be packed in such a way as to store the produce properly. The materials used inside the package shall be clean, and of a quality such as to prevent any damage that affects the produce quality. The use of materials, particularly of paper or stamps bearing trade specification is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

#### 5.3 Description of containers

The containers shall meet the quality, hygiene, be well aerated and free of smell and foreign matter. They shall have resistance characteristics to ensure suitable handling, shipping and preserving of fruit quality.

### **6. MARKING AND LABELLING**

#### 6.1 Retail packages

The following information shall appear on the package for guava in a manner that is legible and clear without false or deceptive information:

(1) Type of produce

Indicate the word “Guavas” and/or “Guava variety”

(2) Class (optional)

(3) Size code (optional)

(4) Net weight in gram or kilogram

(5) Information of producer, importer and distributor

Indicate the name and address of production or repacking or distribution. Name and address of the head office or re-packer may be given. If the produce is imported, importer's name and address shall be given.

(6) Data of origin

Indicate country of origin, except the guava domestically produced for local market.

(7) Language

Label of produce for domestic market shall be in Thai. Label of produce for export can be in foreign language.

## 6.2 Non-retail containers

Each container shall bear the following particulars in the documents accompanying the shipment or in the label adhering to the container in a manner that is legible, indelible and without false or deceptive information:

(1) Type of produce

Indicate the word "Guavas" and/or "Guava variety"

(2) Class

(3) Size code (optional)

(4) Net weight in gram or kilogram

(5) Information of producer, importer and distributor.

Indicate the name and address of production or repacking or distribution. Name and address of the head office or re-packer may be given. If the produce is imported, importer's name and address shall be given.

(6) Data of origin

Indicate country of origin, except the guava domestically produced for local market.

(7) Language

Label of produce for domestic market shall be in Thai. Label of produce for export can be in foreign language.

## 7. OFFICIAL INSPECTION MARK OR CERTIFICATION MARK

This provision shall be complied with the requirements of the Agricultural Standards Committee or the criteria and conditions of inspection body or certification body.

**8. CONTAMINANTS**

This provision shall be in compliance with the notifications of the Ministry of Public Health numbers 98 and 273, the relevant laws and regulations, and the Thai Agricultural Standard on Contaminants.

**9. PESTICIDE RESIDUES**

This provision shall be in compliance with the notification of the Ministry of Public Health number 288, the relevant laws and regulations as well as the requirements under the TAS 9002 and TAS 9003 entitled Thai Agricultural Standard on Pesticide Residues: Maximum Residue Limits and Extraneous Maximum Residue Limits, respectively.

**10. HYGIENE**

Guava shall be hygienically handled including harvest, storage, packing and transport in order to prevent contamination that may be harmful to the consumer.

**11. METHODS OF ANALYSIS AND SAMPLING**

This provision shall be complied with relevant laws and regulations and the requirements under the Thai Agricultural Standards on Methods of Analysis and Sampling.

**APPENDIX A**  
**PHOTOS OF GUAVA**



a) var. Klomsali



b) var. Salithong



c) var. Kimchu

**Figure A.1 Typical characteristics of different guava varieties**



a) Acceptable defects



b) Unacceptable defects

**Figure A.2 Defects of guava due to sunburns**



a) Damage caused by Anthracnose disease



b) Damage caused by insects



c) Damage around stem end caused by plant pathogen

**Figure A.3 Unacceptable damage of guava caused by pests**