

# PHILIPPINE NATIONAL STANDARD

PNS/BAFS 264:2018  
ICS 67.080

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## Chilli peppers- specification and grading



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## **Foreword**

The Philippine National Standard (PNS) for Chilli Peppers- Specification and Grading (PNS/BAFS 24:2018) was prepared by the Bureau of Agriculture and Fisheries Standards (BAFS) with the guidance of TWG.

In the development of this standard, the international standards Codex Alimentarius Commission and ASEAN for Chilli peppers standard were considered.

A Technical Working Group (TWG) was created through Special Order No. 199 Series of 2016. Comments and recommendations were solicited from the relevant government agencies, academe, private sector and non-government organizations. The PNS was approved by the secretary of the Department of Agriculture and consequently, submitted to the Bureau of Philippine Standards for repository.

Provisions regarding quality and size specification were harmonized with the Codex Standard for Chilli peppers. Annex B and C show the classifications of siling haba (*Capsicum annuum* L.) and siling labuyo (*Capsicum frutescens* L.) were gathered by the Bureau of Agriculture and Fisheries Standards (BAFS) from locally available chilli in the Philippines.

This document was drafted in accordance with the editorial rules of the ISO Directives, Part 2 8<sup>th</sup> edition.

## 1 Scope

This Standard applies to fresh chilli peppers grown from *Capsicum annum* L. and *Capsicum frutescens* L. including varieties (cultivars) and/or commercial types. Chilli peppers for industrial processing are excluded.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the cited edition applies. For undated references, the latest edition of the referenced document (including any amendments) applies;

*Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables CAC/RCP 44-1995*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **capsaicinoids**

colorless irritant phenolic amide( $C_{18}H_{27}NO_3$ ), found in chilli peppers that gives their pungency; measured in  $\mu\text{g/g}$  dry weight,  $1\mu\text{g/g}=15$  Scoville units

### 3.2

#### **clean**

practically free from stain, pests and diseases, cuts and bruises, dirt or other foreign matter

### 3.3

#### **damage/ defect**

any specific feature which detracts from the appearance of the edible or marketing quality of chilli peppers

### 3.4

#### **foreign matter**

include, but not limited to pests, dust, dirt, plastic, and stone which are extraneous or foreign to chilli peppers

### 3.5

#### **practically free**

almost free of defect or foreign matter on the concerned items

### 3.6

#### **scoville heat units**

measurement of the pungency (spicy heat) of chilli peppers

### 3.7

#### **sound**

fresh, free from rotting and deterioration

## **4 Provisions concerning quality**

### **4.1 Minimum requirements**

In all classes, subject to the special provisions for each class and the tolerances allowed, the chilli peppers shall be:

- whole, the stalk (stem) may be missing, provided that the break is clean, and the adjacent skin is not damaged;
- sound, produce affected by rotting or deterioration such as to make it unfit for human consumption is excluded;
- firm;
- clean, practically free of any visible foreign matter;
- practically free of pests and damage caused by them affecting the general appearance of the produce;
- free of abnormal external moisture excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste; and
- free of damage caused by low and/or high temperatures.

**4.2** Chilli peppers shall be harvested at an appropriate degree of maturity in accordance with the criteria proper to the variety and the area in which they are grown.

The maturity and condition of the chilli peppers shall be such as to enable them:

- to withstand transport and handling; and
- to arrive in satisfactory condition at the place of destination.

## **5 Classification**

Chilli peppers are classified in three classes defined below:

### **5.1 Extra class**

Chilli peppers in this class shall be of superior quality. They shall be characteristic of the variety. They shall be free of defects, with the exception of very slight superficial defects affecting an area of up to 0.5% of the produce surface, provided these do not affect the general appearance of the produce, the quality, the keeping quality, and presentation in the package.

### **5.2 Class I**

Chilli peppers in this class shall be of good quality. They shall be characteristic of the

variety. Slight defects, however, may be allowed, affecting an area of up to 2.0% of the product surface, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

### 5.3 Class II

This class includes chilli peppers, which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 4.1 above. Defects, however, may be allowed, affecting an area of up to 3.0% of the product surface, provided the chilli peppers retain their essential characteristics as regards the quality, the keeping quality, and presentation.

## 6 Provisions concerning sizing

Size is determined by length of the chilli pepper in accordance with the following table.

<sup>1</sup>Table 1. Size specification for chilli peppers

Size code	Length of fruit	
	(cm)	
	<i>C. annuum</i> L.	<i>C. frutescens</i> L.
1	>16	>3
2	>12-16	>1-3
3	>8-12	0.5-1
4	4-8	-

## 7 Provisions concerning tolerance

Tolerance in respect of quality and size shall be allowed in each package for produce not satisfying the requirements of the class indicated.

### 7.1 Quality tolerances

#### 7.1.1 Extra class

<sup>1</sup> The size specification on the CODEX standard is only applicable for *C. annuum* and has a reverse size code, 1 as being the shortest and 5 as being the longest.

Five percent (5%) by number or weight of chilli peppers not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

### **7.1.2 Class I**

Ten percent (10%) by number or weight of chilli peppers not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

### **7.1.3 Class II**

Ten percent (10%) by number or weight of chilli peppers satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

## **7.2 Size tolerances**

For all classes, 10% by number or weight of chilli peppers corresponding to the size immediately above and/or below that indicated on the package.

## **8 Sampling**

Sampling for ascertaining the conformance should be in accordance with *Fresh Fruits and Vegetables—Sampling* (PNS/ISO 874).

## **9 Provisions concerning presentation**

### **9.1 Uniformity**

The contents of each package shall be uniform and contain only chilli peppers of the same origin, quality, size and variety. The visible part of the contents of the package shall be representative of the entire contents.

### **9.2 Packaging**

Chilli peppers shall be packed in such a way as to protect the produce properly. The materials used inside the package shall be new, clean, and of a quality such as to avoid causing any external or internal 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.

Chilli peppers shall be packed in each container in compliance with the *Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables CAC/RCP 44-1995*.

## **Description of containers**

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the chilli

peppers. Packages shall be free of all foreign matter and smell.

## **10 Marking or labeling**

### **10.1 Consumer packages**

In addition to the requirements of the *Codex General Standard for the Labeling of Prepackaged Foods* (CODEX STAN 1-1991 Rev. 2018), the following specific provisions apply:

#### **Nature of produce**

If the produce is not visible from the outside, each package shall be labeled as to the name of the produce and the variety and may be labeled as to the level of pungency (Annex B).

### **10.2 Non- retail containers**

Each package shall bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside, or in the documents accompanying the shipment.

#### **10.2.1 Identification**

Name and address of exporter, packer and/or dispatcher. Identification code (optional).

#### **10.2.2 Nature of produce**

Name of the produce if the contents are not visible from the outside. Name of the variety, level of pungency (optional).

#### **10.2.3 Origin of produce**

Country of origin and, optionally, district where grown or national, regional or local place name.

#### **10.2.4 Commercial identification**

- Class;
- Size;
- Variety; and
- Pungency (optional).

#### **10.2.5 Date of harvest**

#### **10.2.6 Official inspection mark (optional)**

## **11 Contaminants**

### **11.1 Heavy metals**

Chilli peppers shall comply the maximum limits for heavy metals established by the Codex Alimentarius Commission and/or competent authority for this commodity.

### **11.2 Pesticide residue**

The produce covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

## **12 Hygiene**

**12.1** It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the *Recommended International Code of Practice – General Principles of Food Hygiene* (CAC/RCP 1-1969), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice (COHP) for Spices and Dried Aromatic Herbs.

**12.2** The produce should comply with any microbiological criteria established in accordance with the *Principles for the Establishment and Application of Microbiological Criteria for Foods* (CAC/GL 21-1997).



**Annex A**  
(informative)

**Levels of pungency of chilli peppers**

**Table A.1 Pungency level of chilli peppers**

<b>Pungency</b>	<b>Scoville Units</b>	<b>Total capsaicinoids (microg/gm dry weight)</b>
Mild	900 – 1,999	60 – 133
Medium	2,000 – 19,999	134 – 1,333
Hot	20,000 – 100,000	1,334 – 6,600
Extra Hot	>100,000	>6,600

**Annex B**  
(informative)

**Classification of siling haba**



Figure B.1 Extra class



Figure B.2 Class I



Figure B.3 Class II

**Annex C**  
(informative)

**Classification of siling labuyo**



Figure C.1 Extra class

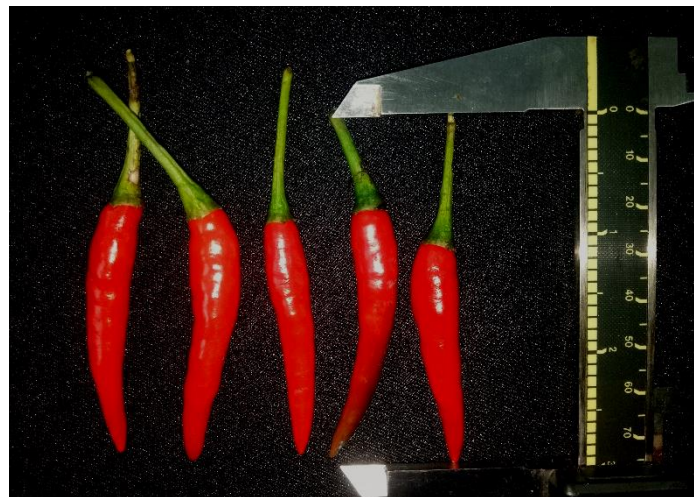


Figure C.2 Class I



Figure C.3 Class II

**Annex D**  
(informative)

**Common damages of chilli peppers**



Figure D.1 Insect damage



Figure D.2 Misshapen



Figure D.3 Lack of freshness



Figure D.4 Discoloration

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- Supply Chain Analysis of Identified Agricultural Commodities: A benchmarking Study in Six Selected Countries in Asia and Latin America- Chilli Report (Volume 1).



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National Standard (PNS) Chilli peppers- specification and grading**

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