

# PHILIPPINE NATIONAL STANDARD

PNS/BAFPS 63:2008  
ICS 67.080

---

---

## Fresh fruits – Melons



**BUREAU OF PRODUCT STANDARDS**

Member to the International Organization for Standardization (ISO)  
Standards and Conformance Portal: [www.bps.dti.gov.ph](http://www.bps.dti.gov.ph)

## **Foreword**

The Philippine National Standard for Melons, PNS/BAFPS 63:2008 was undertaken by the Bureau of Agriculture and Fisheries Product Standards (BAFPS) in order to reflect the recent technology developments in the industry, and the need for its harmonization with ASEAN standards and Codex requirements in Heavy Metals, Pesticide Residues and Hygiene.

PNS/BAFPS 63:2008 was based on the Specification for Honeydew Melon developed by the Philippine Trade Standards with PTS No. 051-13.02:1969, which aims to provide a common understanding on the system of grading and classifying Melons that are produced in the Philippines intended to be supplied fresh to the consumers.

A Technical Committee (TC) and Sub-Committee (SC) were organized by the Bureau of Agriculture and Fisheries Product Standards (BAFPS) through Special Order No. 411, series of 2001 and Special Order No. 169, series of 2007 to identify members and expert that shall be involved in the formulation of the PNS for Melons. Modifications were made concerning its scope, definition of terms, minimum requirements, classification, sizing, sampling, packaging, marking and labeling. The draft standard of Melons was presented for technical reviews and public consultations as well in the three major islands of the country prior to the finalization of the standard.

**Fresh fruits – Melons**

---

**1 Scope**

This standard establishes a system of grading and classifying Melons from *Cucumis melo* Linn., produced in the Philippines to be supplied fresh to the consumer.

**2 References**

The titles of the standard publications and other references of this standard are listed on the inside back cover.

**3 Definitions****3.1****badly misshapen**

melon is conspicuously lopsided, indented, or otherwise deformed that the appearance is seriously affected

**3.2****clean**

practically free from stains, dirt or other foreign material

**3.3****damage**

any defect or injury which materially affects the appearance, eating and shipping qualities of the melon

**3.4****fairly well-formed**

melon is moderately lopsided or indented

**3.5****liquid**

slight amount of liquid present in the seed cavity

**3.6****mature**

melon has reached the stage of maturity which will insure proper completion of the ripening process

**3.7****overripe**

the flesh of the melon adjacent to the seed cavity begins to disintegrate and yields readily to slight pressure

### 3.8

#### **serious damage**

any defect which seriously deviates from the appearance, eating and shipping qualities of the melon, i.e., fermented liquid in the seed cavity; the flesh next to the seed cavity begins to become soft and mashy

### 3.9

#### **well-formed**

melon is practically symmetrical and has typical shape of the variety

## 4 Minimum requirements

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

- whole and mature;
- firm and not overripe;
- clean, practically free of any visible foreign matter;
- practically free of decay;
- practically free of damage caused by pests, dead and living insects, and wormholes;
- practically free of mold or other contaminants;
- practically free of mechanical damage; and
- free of bitter taste and undesirable odor.

The development and condition of melon must enable it:

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

## 5 Classification

Melons are classified into three classes as defined below:

**5.1 Extra class** – Melons in this class must be of superior quality and have similar characteristics of the variety and/or commercial type. It must be practically free from defects, with the exception of very slight superficial defects, provided these defects do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

**5.2 Class I** – Melons in this class must be of good quality and have similar characteristics of the variety and/or commercial type. Slight superficial defects are allowed, provided these defects 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 melon which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Clause 4.

## 6 Size classification

Size is determined by weight of the melon.

Size	Weight of melon (kg)
Small	0.75 - 1.5
Medium	1.6 - 2.5
Large	> 2.5

## 7 Tolerances

### 7.1 Quality tolerance

**7.1.1 Extra class** – Five percent by number of melon not satisfying the requirements of the class but meeting those of class I or, exceptionally, coming within the tolerance of that class.

**7.1.2 Class I** – Ten percent by number of melon 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.

**7.1.3 Class II** – Ten percent by number of melon satisfying neither the requirements of the class nor the minimum requirements and without rotting or any other deterioration rendering it unfit for consumption.

### 7.2 Size tolerance

**7.2.1 Extra class** – Five percent by weight of melon not satisfying the requirements of the class but meeting those of class I.

**7.2.2 Class I** – Ten percent by weight of melon not satisfying the requirements of the class but meeting those of class II.

**7.2.3 Class II** – Ten percent by weight of melon not satisfying the requirements of the class.

## 8 Sampling

Sampling to be used for ascertaining conformance shall be in accordance with PNS/ISO 874.

## **9 Packaging**

Melons must be packed in suitable containers as specified by the buyer that will protect them from any external or internal damage. The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling and transport of melon.

## **10 Marking and labeling**

Each container shall be legibly labeled with the following information:

- 10.1** Name of produce, variety and/or commercial type;
- 10.2** Class and size;
- 10.3** Net content, weight (kg)/pieces/pack;
- 10.4** Name and address of producer, trader and exporter;
- 10.5** Province where grown;
- 10.6** Date of harvest;
- 10.7** Shelf-life of the produce (optional);
- 10.8** Product Certification (optional); and
- 10.9** Product of the Philippines.

## **11 Contaminants**

### **11.1 Heavy metals**

Melons shall comply with the maximum levels of heavy metals established by the Codex Alimentarius Commission and/or authority for this commodity.

### **11.2 Pesticide residues**

Melons shall comply with the maximum residue limits established by the Codex Alimentarius Commission and/or authority for this commodity.

## **12 Hygiene**

**12.1** It is recommended that the produce covered by the provision 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, Rev.2 –1985), and other relevant Codex texts such as Code of Hygienic Practice and Code of Practice.

**12.2** Melons shall comply with microbial criteria established in accordance with the Principles for the Establishment of Microbiological Criteria for Foods (CAC/GL 21-1997).

## Annex A

### Varieties of melon

1. **Honeydew melons**, hybrids and non-hybrids, are ready to eat when the peel turns pale green to cream and its surface is waxy. The blossom-end of the fruit has a pleasant aroma. Less ripe and cold melons have little aroma. Majority of honeydew melons has green-flesh, but specialty fruit has gold, orange, or pink flesh.
2. **Casaba melons** are ready to eat when the peel is yellow and the blossom-end is spongy. The flesh should be soft, almost white with a slight salmon cast around the seed cavity and has subtly sweet and has no aroma.
3. **Crenshaw melons** are hybrids of Casaba and Persian ('Netted melons'). These fruits are ready to eat when dark-green peel turns yellow, the blossom-end is spongy, and has a pleasant spicy aroma. The flesh is very sweet, soft, juicy and has salmon color. Overripe fruits are entirely yellow and soft.
4. **Canary melons** are ready to eat when the peel is generally smooth, bright canary-yellow, oval shaped fruit, and the blossom-end is spongy. The flesh is crispy, flavorful, with sweet aroma, and white with tinge of pink around the seed cavity.



## Annex B

### Other melon cultivars

1. **Superstar** is an early maturing cultivar with a distinctive ribbed shape, sweet and with juicy flesh.
2. **HMX 2607** is round, with small cavities and has a good quality fruit.
3. **Eclipse** has uniform size of fruit with good flavor.
4. **Aphrodite** is large, firm, early maturing cultivar resistant to cracking.
5. **HMX 4587** has very large fruit, with round to elongated shape and low in soluble solids.
6. **Moneyloupe** is a shipper type, big, oblong and has good eating characteristics when fully ripened.
7. **Crescent moon** is large with prominent ribbing and low in soluble solids.
8. **Athena** is small with superior quality and has good shelf life.

## Annex C

Table 1 – The characteristics of melon cultivars.

<b>Cultivar</b>	<b>Fruit weight (kg)</b>	<b>% Soluble solids</b>
<b>1. Superstar</b>	14.08	
<b>2. HMX 2607</b>	14.30	10.1
<b>3. Crescent Moon</b>	15.40	8.7
<b>4. HMX 4587</b>	17.16	8.7
<b>5. Eclipse</b>	14.30	11.4
<b>6. Moneyloupe</b>	16.72	11.1
<b>7. Athena</b>	10.78	12.2
<b>8. Aphrodite</b>	14.30	11.6

## References

**PNS/BAFPS 63:2008**

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

Honeydew melon. 1969. Philippine Trade Standards No. 051 – 13.02.

Lamb, E. M., Nicole L. Shaw and Daniel J. Cantliffe. 2003. Galia Muskmelons: Evaluation for Florida Greenhouse Production. University of Florida Extension. Institute of Food and Agricultural Sciences.

Muskmelon Cultivar Trial. Muscatine Island Research and Demonstration Farm. Iowa State University. ISRF 05 – 20.

PNS/ISO 874 (e): Fresh Fruits and Vegetables – Sampling

United States Standards for Grades of Cantaloups. 1997. United States Department of Agriculture.

**Department of Agriculture  
Bureau of Agriculture and Fisheries Product Standards  
Technical Sub-Committee on Crops**

**Chair**

- 1 Dr. Elda B. Esguerra  
Postharvest Horticulture Training and Research Center, UP Los Baños

**Members**

- |   |   |   |   |
|---|---|---|---|
| 2 | Dr. Leonila M. Varca<br>National Crop Protection Center<br>UP Los Baños                           | 5 | Dr. Rene Rafael C. Espino<br>National Program Director<br>GMA – HVCC Program<br>Department of Agriculture |
| 3 | Dr. Dario S. Sabularse<br>Fertilizer and Pesticide Authority                                      | 6 | Ms. Josephine Garcia<br>Bureau of Plant Industry<br>San Andres, Malate, Manila                            |
| 4 | Dr. Edralina P. Serrano<br>Postharvest Horticulture Training<br>and Research Center, UP Los Baños |   |   |

**Expert Involved**

- 7 Dr. Rodel G. Maghirang  
Crop Science Cluster  
Institute of Plant Breeding  
UP Los Baños

**Secretariat on Crops**

**Chairman**

- 1 Director Gilberto F. Layese  
Bureau of Agriculture and Fisheries Product Standards

**Members**

- 2 Ms. Angelina A. Bondad  
Chief Science Research Specialist  
Bureau of Agriculture and Fisheries Product Standards
- 3 Mr. Clarence F. Agustin  
Senior Science Research Specialist  
Bureau of Agriculture and Fisheries Product Standards

*your partner in product quality and safety*



**BUREAU OF PRODUCT STANDARDS**

---

3F Trade and Industry Building  
361 Sen. Gil J. Puyat Avenue, Makati City 1200, Metro Manila, Philippines  
T/ (632) 751.3125 / 751.3123 / 751.4735  
F/ (632) 751.4706 / 751.4731  
E-mail : [bps@dti.gov.ph](mailto:bps@dti.gov.ph)  
[www.dti.gov.ph](http://www.dti.gov.ph)