

PHILIPPINE NATIONAL STANDARD

PNS/BAFS 152:2015
ICS 67.080

Fresh vegetable – Loofah – Classification and grading



BUREAU OF PHILIPPINE STANDARDS (BPS)

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- International Organization for Standardization (ISO)
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Foreword

The Philippine National Standard for Fresh vegetable – Loofah – Classification and grading (PNS/BAFS 152:2015) was developed by the Technical Working Group (TWG) on the Development of PNS for Loofah. The group was organized by the Bureau of Agriculture and Fisheries Standards (BAFS) through a Special Order No. 169, Series of 2014 to present common information and understanding on the quality and safety requirements for loofah. The TWG conducted technical reviews and public consultations in the three major islands of the country to generate further scientific data and opinions needed prior to the finalization of this Standard.

PNS/BAFS 152:2015 aims to provide common understanding on the scope, definitions, minimum requirements, classification, size classification, tolerances, sampling, packaging, marking and labeling, contaminants, and hygiene.

Fresh vegetable – Loofah – Classification and grading

1 Scope

This Standard applies to varieties/cultivars of loofah locally known as patola, to be supplied fresh to the consumer after preparation and packaging. The species covered by this Standard are smooth or sponge loofah (*Luffa cylindrica* M. Roem.) and angled or ridged loofah (*Luffa acutangula* Linn.) of the Cucurbitaceae family.

Loofah for industrial processing are excluded.

2 References

The titles of the standard publications referred to in this standard are listed on the inside back cover.

3 Definition

For purposes of this standard, the following definitions shall apply:

3.1**clean**

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

3.2**damage**

any specific defect, which detracts from the appearance of the edible or marketing quality of loofah caused by pests and diseases, cuts and bruises, and physiological disorder

3.3**foreign matter**

shall include, but not limited to pest, dust, dirt, plastic and stone, which are extraneous or foreign to loofah

3.4**practically free**

almost free of the concerned items (e.g. damages and foreign matters)

3.5**sound**

free from rotting and deterioration

4 Provisions concerning quality

4.1 Minimum requirements

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

- whole;
- fresh;
- tender;
- characteristic of the variety;
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean, practically free of any visible foreign matter.
- practically free of pests and damage caused by them affecting the general appearance of the produce;
- practically free from mechanical and physiological damage caused by low and/or high temperature;
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell and/or bitter taste; and
- practically free of pronounced blemishes.

The pedicel should be neatly cut and not be less than 3 cm.

4.1.2 The loofah must have been carefully picked and have reached an appropriate degree of development and display satisfactory maturity (with dried petals and presence of whitish powdery bloom) in accordance with criteria proper to the variety and to the area in which they are grown.

The development and condition of the loofah must enable them to:

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

4.2 Classification

Loofah is classified in three classes defined below:

4.2.1 “Extra” class

Loofah in this class must be of superior quality. They must be characteristic of the variety or cultivar in shape, external appearance, development and color. They must be free of defects, with the exception of very slight superficial defects provided they do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package. Loofah must be uniform in color, size and shape.

They must be:

- well developed with neatly cut pedicel;
- well shaped and practically straight; and
- practically free from defects including all deformations.

4.2.2 Class I

Loofah in this class must be of good quality. They must be characteristics of the variety or cultivar in shape, external appearance, development and color. They must be:

- well developed with neatly cut pedicel; and
- well shaped and practically straight.

Provided that the following do not amount to defect if they do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight deformation;
- slight defect in color, slight pale especially the light colored part of the loofah where it touched the ground during growth; and

slight skin blemishes due to rubbing and handling or low temperatures not to exceed 5 percent of the total surface area, provided that such blemishes have healed and do not affect the flesh and the keeping quality.

4.2.3 Class II

This class includes loofah which do not qualify for inclusion in the higher classes but satisfy the minimum requirements. Provided that the following do not amount to defect if the loofah retain their essential characteristics as regards the general appearance, the quality, the keeping quality and presentation in the package which have:

- deformation;
- defects in color up to one-tenth of the surface;
- healed cracks provided not affecting the flesh; and
- slight damage caused by rubbing and handling not to exceed 10 percent of the total surface area.

Slightly crooked loofah may be allowed in this Class.

5 Provisions concerning sizing

Size is determined by the weight of the loofah, as presented in Table 1.

Table 1 – Size classification of Loofah

Size Classification	Weight (g)
Extra large (XL)	>600
Large (L)	401 – 600
Medium (M)	201 – 400
Small (S)	< 201

6 Provisions concerning tolerances

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

6.1 Quality tolerances

6.1.1 "Extra" Class

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

6.1.2 Class I

Ten percent by number or weight of loofah 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.

6.1.3 Class II

Ten percent by number or weight of loofah satisfying neither the requirements of the class nor the minimum requirements and without rotten loofah.

6.2 Size tolerances

For all classes, 10 % by number or weight of loofah corresponding to the size immediately below or above the size indicated on the package is allowed.

7 Sampling

Sampling for ascertaining the conformance shall be in accordance with PNS/ISO 874:2011 Fresh Fruits and Vegetables – Sampling.

8 Provisions concerning presentation

8.1 Uniformity

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

8.2 Packaging

Loofah must be packed in such a way as to protect the produce properly. The materials used inside the packages must be new¹, 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 that the printing or labeling has been done with a non-toxic ink or glue.

Loofah shall be packed in each container in compliance with the Recommended Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables (CAC/RCP 44-1995).

8.3 Description of Containers

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the loofah. Packages (or lot for produce presented in bulk) must be practically free of foreign matter and smell.

9 Marking and labelling

9.1 Consumer packages

In addition to the requirements of the Codex General Standard for the Labeling of Prepackaged Foods (CODEX STAN 1-1985), each package shall be legibly labeled with the following information:

9.1.1 Name of produce, variety or cultivar (smooth or ridged)

9.1.2 Class

9.1.3 Net weight (optional)

9.1.4 Name and address of producer, trader, exporter, packer and/or dispatcher. Identification code (optional)²

¹ For the purposes of this Standard, this includes recycled material of food grade quality.

² In the case where a code mark is used, the reference “packer and/or dispatcher (or equivalent abbreviations)” has to be indicated in close connection with the code mark.

9.1.5 Place of origin (farm and optionally province where grown or name of local place)

9.1.6 Date of harvest

9.1.7 Official inspection mark and/or product certification mark (optional)

9.1.8 Product of the Philippines

9.2 Non-retail containers

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

10 Contaminants

10.1 Heavy metals

Loofah shall comply with those maximum levels for heavy metals established by the Codex Alimentarius Commission or authority for this commodity (Annex 1).

10.2 Pesticide residues

Loofah shall comply with those maximum residue limits established by the Codex Alimentarius Commission or authority for this commodity.

11 Hygiene

11.1 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 Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969), Recommended Code of Hygienic Practice for Fresh Fruits and Vegetables (CAC/RCP 53-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

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

Annex 1

Table 2 – Heavy metals for Loofah

Heavy metal	Maximum level (mg/kg)
Cadmium (Cd)	0.05
Lead (Pb)	0.1

Source:
CODEX STAN 193-1995. Codex General Standard for Contaminants and Toxins in Food and Feed. (www.codexalimentarius.org)

References

PNS/BAFS 152:2015

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.

CAC/GL 21-1997. Principles for the Establishment and Application of Microbiological Criteria for Foods

CAC/RCP 53-2003. Recommended Code of Hygienic Practice for Fresh Fruits and Vegetables

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

CAC/RCP 1-1969. Recommended Code of Practice – General Principles of Food Hygiene

CODEX STAN 193-1995. Codex General Standard for Contaminants and Toxins in Food and Feed

CODEX STAN 1-985. Codex General Standard for the Labeling of Prepackaged Foods

PNS/ISO 874-2011. Fresh Fruits and Vegetables - Sampling

Fruits and Vegetables Grading and Marking (Amendment) Rules, 2012. Schedule – XLVI. Grade Designation and Quality of Sponge Gourd. Department of Agriculture and Co-Operation. Ministry of Agriculture. New Delhi, India. (<http://www.agmarknet.nic.in/FruitVegGmRules2012>, accessed on March 15, 2014)

USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). [Online Database] National Germplasm Resources Laboratory, Beltsville, Maryland. Available: <http://www.ars-grin.gov/cgi-bin/npgs/acc/display.pl?1437542> (08 July 2014)



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BUREAU OF PHILIPPINE STANDARDS (BPS)

**Department of Agriculture
Bureau of Agriculture and Fisheries Standards**

Technical Working Group – Development of PNS for Loofah

Chair

Leoncia L. Tandang
Benguet State University

Co – Chair

Rodel G. Maghirang
Institute of Plant Breeding

MEMBERS

Pablito P. Pamplona
Triple-P Farms & Nursery

Emma S. Data
Visayas State University

Edna Guiang
Bureau of Plant Industry
Department of Agriculture

Secretariat

Bureau of Agriculture and Fisheries Standards

Chair

Karen Kristine A. Roscom

Members

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Mr. Jaypee G. Trinidad