

PHILIPPINE NATIONAL STANDARD

PNS/BAFPS 109:2012
ICS 67.080.10

Malunggay (*Moringa*) powder – Specification



BUREAU OF PRODUCT STANDARDS

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Foreword

The Bureau of Agriculture and Fisheries Product Standards in cooperation with the Department of Agriculture Biotech Program and the National Agribusiness Corporation (NABCOR) has embarked in a project entitled “**Development of Philippine National Standards for Natural Ingredients: *Moringa* Powder and *Moringa* Oil**” in 2009. The project aimed to support the development of the natural ingredients industry by promoting the standardization of processing of natural ingredients.

Malunggay or *Moringa* has been identified to be one of the commodities having the most potential in the roster of natural ingredients. It has been used as a health supplement and as an important oil in the nutraceutical and cosmoceutical industry. In order to fully develop the natural ingredients industry, the Philippines through the Department of Agriculture took the undertaking to improve the production and processing of the *Moringa* Industry through the development and establishment of Philippine National Standards.

This Philippine National Standard for Malunggay (*Moringa*) Powder have been prepared for the purpose of providing a uniform approach to the essential composition and quality factors, presentation, packaging and labeling, methods of analysis and sampling, and hygiene. It is hoped that this standard accomplishes the goal of protecting consumer health and making the Philippine Natural Ingredients industry globally competitive.

Malunggay (*Moringa*) powder – Specification**1 Scope**

This standard applies to Malunggay (*Moringa*) powder that has been processed in the form of functional ingredient for human consumption.

2 References

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

3 Definitions

For the purpose of this standard, the following definitions apply:

3.1**moisture content**

amount of water present in a food (g of H₂O/100 g of solids)

3.2**Malunggay (*Moringa*) powder**

powder obtained solely from the mature leaves of the Malunggay (*Moringa oleifera*) tree that has been dried and processed to allow optimum retention of the nutrients, to the exclusion of any mixture of other powders of any kind

4 Classification

Malunggay (*Moringa*) powder shall be classified for the purpose of commercialization into three types according to the particle size of the product measured in mesh:

Classification	Mesh size (US ASTM Standard)	Mesh size (in mm)
Coarse	< 60	< 0.25
Fine	60 - 300	0.25 – 0.048
Very Fine	> 300	> 0.048

5 Essential composition and quality factors

5.1 Malunggay (*Moringa*) powder should have a bright green to green color, odorless and free from off odors or flavors due to deterioration or absorption of extraneous substances.

5.2 Moisture content

The moisture content for Malunggay (*Moringa*) powder should be at 8 % maximum.

6 Food additives

Food additives when used should be in accordance with the current regulations of the Food and Drug Administration (FDA) and recommended standards as approved and enumerated by the Codex Alimentarius Commission for this commodity.

7 Contaminants

The products covered by the provisions of this standard shall comply with “maximum limits” (MLs) being established by the Codex Alimentarius Commission and/or authority for this commodity.

8 Pesticide residues

The products covered by the provisions of this standard shall comply with “maximum residue limits” (MRLs) being established by the Codex Alimentarius Commission and/or authority for this commodity.

9 Hygiene

The products covered by the provisions of this standard must be prepared and handled in accordance with the appropriate sections of the following:

- A. Food and Drug Administration (FDA) Administrative Order 153 Series of 2004 on the Revised Guidelines on Current Good Manufacturing Practice in Manufacturing, Packing, Repacking or Holding Food (Annex 1).
- B. Recommended International Code of Practice-General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 3-1997), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.
- C. The products should comply with any microbiological criteria established the FDA in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997) as follows:

Microbiological limits for *Moringa* powder (FDA, 2010)

Parameter	Standards
Microbiological Limits:	<u>Solid</u>
Aerobic bacteria, cfu/g or mL	10 ⁴ , max
Yeasts & molds, cfu/g or mL	10 ³ , max
<i>Escherichia coli</i> , cfu/g or mL	Absent
<i>Salmonella</i> spp. / 25g	Absent
<i>Staphylococcus aureus</i> , cfu/g	Absent
Other <i>Enterobacteriaceae</i> , cfu/g	10 ² , max

10 Labelling

The label of each package shall have the following information in accordance with the FDA Labeling regulation:

- Name of product: “Malunggay (*Moringa*) Powder”;
- Brand name or trade name;
- Net content;
- Lot identification;
- Name and address of the manufacturer and/or packer, or distributor;
- The phrase “Product of the Philippines”;
- Type of process;
- Date manufactured and “Best Before”;
- Bar code (for retail); and
- Instructions for use (for retail).

11 Methods of analysis and sampling

11.1 Sampling methods to be used for ascertaining conformance to the requirements of this specification shall be in accordance with PNS/ISO 874 – Fresh Fruits and Vegetables Sampling.

11.2 Determination of moisture and volatile matter in accordance to ISO 662:1998.

References

PNS/BAFPS 109:2012

The following normative documents contain provisions that, through reference in this text, constitute provisions of this standard. For undated references, the latest edition of the referenced document (including amendments) applies:

Codex Alimentarius Commission. Code of Hygienic Practice for Spices and Dried Aromatic Plants (CAC/RCP 42-1995). Rome.

Duckworth, R.B. ed. 1974. Water Relations of Foods: Proceedings of an international symposium. Academic Press: San Francisco.

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Malunggay (*Moringa*) Oil**

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