



ASEAN STANDARD FOR SPINACH (ASEAN Stan 45:2015)

1. DEFINITION OF PRODUCE

This standard applies to commercial varieties of spinach grown from *Spinacia oleracea* L. of the Amaranthaceae family, to be supplied fresh to the consumer. Spinach for industrial processing are excluded.

2. PROVISIONS CONCERNING QUALITY

2.1 MINIMUM REQUIREMENTS

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

- whole;
- fresh and tender;
- intact;
- 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 such as low and/or high temperature;
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free from floral stem;
- free of any foreign smell and/or taste; and
- Well-trimmed.

2.1.1 The spinach must have been harvested and have reached an appropriate degree of development in accordance with criteria proper to the variety and the area in which they are grown. The development and condition of the spinach must be such as to enable them:

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

2.2 CLASSIFICATION

Spinach is classified in two classes defined below:

2.2.1 Class I

Spinach in this class must be of good quality. They must be characteristic of the variety and/or commercial type.

Spinach presented in rosettes must be free from root tufts.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slightly damaged leaves, such as cracks, holes or tears;
- slight defects in colouring.

2.2.2 Class II

This class includes spinach that do not qualify for inclusion in Class I but satisfy the minimum requirements specified above.

The following defects may be allowed, provided the spinach retain their essential characteristics as regards the quality, the keeping quality and presentation:

- damaged leaves, such as cracks, bruises, holes or tears;
- defects in colouring;
- slight lack of freshness;
- small root tuft; and
- slight ribbiness.

3. PROVISIONS CONCERNING SIZING

There is no sizing requirement for spinach.

4. PROVISIONS CONCERNING TOLERANCES

Tolerances in respect of quality and size shall be allowed in each package (or in each lot for produce presented in bulk) for produce not satisfying the requirements of the class indicated.

4.1 QUALITY TOLERANCES

4.1.1 Class I

Ten percent by number or weight of spinach 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.

4.1.2 Class II

Fifteen percent by number or weight of spinach satisfying neither the requirements of the class nor the minimum requirements and without rotten leaves.

5 PROVISIONS CONCERNING PRESENTATION

5.1 UNIFORMITY

The contents of each package (or lot for produce presented in bulk) must be uniform and contain only spinach of the same origin, quality and size. The visible part of the contents of the package (or lot for produce presented in bulk) must be representative of the entire contents.

5.2 PACKAGING

Spinach must be packed in such a way as to protect the produce properly. The materials used inside the package must be clean and of good 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 labelling has been done with non-toxic ink or glue.

Spinach shall be packed in each container in compliance with the *Recommended International Code of Practice for Packaging and Transport of Tropical Fresh Fruits and Vegetables* (CAC/RCP 44-1995, Amd. 1-2004).

5.2.1 Description of Containers

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

6. MARKING OR LABELLING

6.1 CONSUMER PACKAGES

In addition to the requirements of the *Codex General Standard for the Labelling of Prepackaged Foods* (CODEX STAN 1-1985, Rev. 1-1991), the following specific provisions apply:

6.1.1 Nature of Produce

If the produce is not visible from the outside, each package shall be labelled as to the name of the produce and may be labelled as to the name of the variety and/or commercial type.

6.2 NON-RETAIL CONTAINERS

Each package must 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. For produce transported in bulk these particulars must appear on a document accompanying the goods.

6.2.1 Identification

Name and address of Exporter, Packer and/or Dispatcher. Identification code (optional).

6.2.2 Nature of Produce

Name of produce if the contents are not visible from the outside. Name of variety and/or commercial type.

6.2.3 Origin of Produce

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

6.2.4 Commercial Identification

- Produce name;
- Variety name (optional);
- Class;
- Number of units (optional); and
- Net weight (optional).

6.2.5 Official Inspection Mark (optional)

7. CONTAMINANTS

7.1 PESTICIDE RESIDUES

Spinach shall comply with those maximum residue limits established by the Codex Alimentarius Commission, ASEAN Harmonized MRLs of Pesticides, and/or by authority for this commodity.

7.2 OTHER CONTAMINANTS

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

8. HYGIENE

8.1 It is recommended that the product 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, Rev.4-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

8.2 The product 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).

9. METHODS OF ANALYSIS AND SAMPLING

Analytical and sampling methods to be used for ascertaining conformance to the requirements of this specification shall be in accordance with relevant text in Codex Methods of Analysis and Sampling.

References:

Information for Brunei Darussalam on Spinach. 2014

Malaysian Standard MS 1362 :1994 Specification For Fresh Spinach
(ICS:67.080.20)

United Nations Economic Commission for Europe. 2010. UNECE Standard FFV-58 Concerning the marketing and commercial quality control of leafy vegetables. Agricultural Standards Unit: Geneva, Switzerland.

VERNACULAR NAMES OF SPINACH IN THE ASEAN REGION

| Country | Common name |
|-------------------|--|
| Brunei Darussalam | Bayam |
| Cambodia | Spey Baraing Spey Spinach |
| Indonesia | Horenso Horinso Poleng Bayem Jepang |
| Lao PDR | Puay Leng, Pak Khom Frang Pak Spinach |
| Malaysia | Bayam |
| Myanmar | Hin Nu Ne Hin Gala Hin Nu Ne Hsu Bau |
| Philippines | Kulitis |
| Singapore | |
| Thailand | Puay Leng |
| Vietnam | |