



ASEAN STANDARD FOR MANGO (ASEAN Stan 2:2006, Rev.1-2012)

1. DEFINITION OF PRODUCE

This standard applies to commercial varieties of mangoes grown from *Mangifera indica* L. of the Anacardiaceae family to be supplied fresh to the consumer, after preparation and packaging. Mangoes 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 tolerances allowed, the mangoes must be:

- whole;
- firm;
- fresh in appearance;
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean, practically free from any visible foreign matter;
- practically free of damage caused by pests;
- practically free from mechanical and/or physiological damage such as low temperature
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- sufficiently developed and display satisfactory ripeness;

When a peduncle is present, it shall be no longer than 1.0 cm.

2.1.1 The development and condition of the mangoes must be such as to enable them:

- to ensure a continuation of the maturation process until they reach the appropriate degree of maturity corresponding to the varietal characteristics,
- to withstand transport and handling, and
- to arrive in satisfactory condition at the place of destination.

In relation to the evolution of maturing, the colour may vary according to variety.

2.2 CLASSIFICATION

Mangoes are classified in three classes defined below:

2.2.1 “Extra” Class

Mangoes in this class must be of superior quality. They must be characteristic of the variety. They must be free of defects, with the exception of very slight superficial defects, provided that these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

2.2.2 Class I

Mangoes in this class must be of good quality. They must be characteristic of the variety. The following slight defects, however, may be allowed, provided that these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defects in shape;
- slight skin defects due to rubbing or sunburn, suberized stains due to resin exudation (elongated trails included) and healed bruises not exceeding 2 cm² for size codes 4 and 5, 3 cm² for size code 3, 4 cm² for size code 2, and 5 cm² for size code 1.

2.2.3 Class II

This class includes mangoes which do not qualify for inclusion in the higher class, but satisfy the minimum requirements specified in Section 2.1 above. The following defects may be allowed provided that the mangoes retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape;
- skin defects due to rubbing or sunburn, suberized stains due to resin exudation (elongated trails included) and healed bruises not exceeding 4 cm² for size code 4 and 5, 5 cm² for size code 3, 6 cm² for size code 2, and 7 cm² for size code 1.

In Classes I and II, scattered suberized rusty lenticels, as well as yellowing of green varieties due to exposure to direct sunlight, not exceeding 40 percent of the surface and not showing any signs of necrosis are allowed.

3. PROVISIONS CONCERNING SIZING

Size is determined by the weight of the fruit, in accordance with the following table:

SIZE CODE	WEIGHT (in grams)
1	>450
2	> 350 – 450
3	> 250 – 350
4	> 150 – 250
5	≤150

The maximum permissible difference between fruit in the same package belonging to one of the above mentioned size codes shall be 50g for all classes except size code 1 which is 100g. The minimum weight of mangoes must not be less than 100 g.

4. PROVISIONS CONCERNING TOLERANCES

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

4.1 QUALITY TOLERANCES

4.1.1 “Extra” Class

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

4.1.2 Class I

Ten percent by number or weight of mangoes satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

4.1.3 Class II

Ten percent by number or weight of mangoes satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting, marked bruising or any other deterioration rendering in unfit for consumption.

4.2 SIZE TOLERANCES

For all classes, 10% by number or weight of mangoes in each package are permitted to be outside (above or below) the group size range as follows:

Size Code	Normal Size Range (in grams)	Permissible Size Range of fruit/package exceeding the normal size range)	Max. Permissible Difference between fruit in each package
1	>450	>600	150
2	> 350 – 450	276 – 525	75
3	> 250 – 350	171 – 425	75
4	> 150 – 250	101 – 300	50
5	≤150	<100	50

5 PROVISIONS CONCERNING PRESENTATION

5.1 UNIFORMITY

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

5.2 PACKAGING

Mangoes must be packed in such a way as to protect the produce properly. The materials used inside the packages must be 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.

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

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 mangoes. Packages (or lot of produce is presented in bulk) must be free of all foreign material and smell.

6 MARKING OR LABELLING

6.1 CONSUMER PACKAGES

In addition to the requirements of the Codex General Standard for the Labeling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 2-1999); the following specific provisions apply.

6.1.1 Nature of the Produce

If the produce is not visible from the outside, each package shall be labeled as to the name of the produce and may be labeled as to the same of the variety.

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 (optional)

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

- Class;
- Size (size code or weight range in grams);
- Number of units (optional);
- Net weight (optional)

6.2.5 Official Inspection Mark (optional)

7 CONTAMINANTS

7.1 PESTICIDE RESIDUES

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

7.2 OTHER CONTAMINANTS

Mangoes 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 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, Rev. 3- 1997), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.
- 8.2** 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)

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:

ASEAN Harmonized MRLs for Pesticides

Coates, L. T. Cooke, D. Persley, B. Beattie, N. Wade and R. Ridgway. 1995. Postharvest Diseases of Horticultural Produce: Tropical Fruit (Vol. 2). Manager Publishing Services, Department of Primary Industries, Australia.

FAO/WHO 1993. Codex Alimentarius Volume 5 B. Fresh Fruit and Vegetables, CODEX STANDARD FOR MANGOES (CODEX STAN 184 - 1993). Joint FAO/WHO Food Standard Programme, FAO, Rome 6 p.

Fresh Chokanan Mango – Specification MS 1859;2005

Indonesia National Standard for Mango; SNI 3164:2009, ICS 67.080.10

Malaysia Specification for Grading of Mangoes for Fresh Fruit Consumption MS 885:1984

Mendoza, D.B. and R.B.H. Wills. 1984. Mango: Fruit Development, Postharvest Physiology and Marketing in ASEAN. ASEAN Food Handling Bureau, Kuala Lumpur, Malaysia.

National Bureau of Agricultural Commodity and Food Standards. Ministry of Agricultural and Cooperatives. Thai Agricultural Standard: Mangoes. TAS 5-2003.

Organic Fruit and Vegetables from the Tropics. United Nations. New York and Geneva, 2003. Pp. 109 – 118.

Pesticide residues in food. 1993. Joint FAO/WHO Food Standards Programme. Codex Alimentarius Supplement One to Volume Two. Codex Alimentarius Commission. United Nations. World Health Organization, Rome.

Philippine National Standards: Fresh Fruits and Vegetables – Fresh Fruits - Mangoes (*Mangifera indica* Linn.) Specifications. PNS 13:2004; Bureau of Product Standards, Department of Trade and Industry, Makati, Philippines.

PNS/ISO 874: 1980 (E). Fresh Fruits and vegetables – sampling.

Vernacular Names for Mango

Country	Vernacular Name(s)
Brunei Darussalam	Mangga
Cambodia	Svay
Indonesia	Mangga
Lao PDR	Mak Muang
Malaysia	Mempelam Mangga Pauh
Myanmar	Mempelam Mangga Pauh
Philippines	Mangga
Thailand	Mamuang
Vietnam	Xoai