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**Alignment of standards with the 2009 Standard Layout
in view of updating the existing explanatory brochures**

UNECE Standard FFV-45 concerning the marketing and commercial quality control of mangoes

Submitted by the Secretariat*

I. Definition of produce

This standard applies to mangoes of varieties (cultivars) grown from *Mangifera indica* L. to be supplied fresh to the consumer, mangoes for industrial processing being excluded.

II. Provisions concerning quality

The purpose of the standard is to define quality requirements for mangoes at the export-control stage after preparation and packaging.

However, if applied at stages following export, products may show in relation to the requirements of the standard:

* The present document has been submitted after the official documentation deadline by the Trade and Timber Division due to resource constraints.

- a slight lack of freshness and turgidity
- for products graded in classes other than the “Extra” Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder shall be responsible for observing such conformity.

A Minimum requirements

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

- intact
- 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
- firm
- fresh in appearance
- practically free from pests
- free from damage caused by pests affecting the flesh
- free from black stains or trails which extend under the skin
- free from marked bruising
- free from damage caused by low temperature
- free of abnormal external moisture
- free of any foreign smell and/or taste.

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

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

B. Maturity requirements

The development and the state of maturity of the mangoes must be such as to enable them to continue the ripening process and to reach a satisfactory degree of ripeness.

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

C. Classification

Mangoes are classified in three classes, as defined below:

(i) "Extra" Class

Mangoes in this class must be of superior quality. They must be characteristic of the variety.

They must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

(ii) 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 these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- slight skin defects due to rubbing or sunburn, suberized stains due to resin exudation (elongated trails included) and healed bruises not exceeding 3, 4, 5 cm² for size groups A, B, C respectively
- scattered rusty lenticels
- a yellowing of green varieties due to exposure to direct sunlight, not exceeding 40 per cent of the surface of the fruit, excluding necrotic stains.

(iii) Class II

This class includes mangoes that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.

The following defects may be allowed, provided 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 5, 6, 7 cm² for size groups A, B, C respectively
- scattered rusty lenticels
- a yellowing of green varieties due to exposure to direct sunlight, not exceeding 40 per cent of the surface of the fruit, excluding necrotic stains.

III. Provisions concerning sizing

Size is determined by the weight of the fruit¹.

The minimum weight of mangoes shall be 200 g.

¹ Australia at present determines size of mangoes on the basis of diameter and has placed its reservation on this point *ad referendum*.

To ensure uniformity in size, the following provisions must be respected:

<i>Size code</i>	<i>Weight in grams</i>	<i>Maximum permissible difference between fruit within the package in grams</i>
A	200 - 350	75
B	351 - 550	100
C	551 - 800	125

IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

A. Quality tolerances

(i) "Extra Class"

A total tolerance of 5 per cent, by number or weight, of mangoes not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of mangoes not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of mangoes satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

B. Size tolerances

For all classes: a total tolerance of 10 per cent, by number or weight, of mangoes conforming to half of the permissible difference of the related size group above or below the range specified on the package, with a minimum of 180 g for those packed in the smallest size range and a maximum of 925 g for those in the largest size range.

V. Provisions concerning presentation

A. 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.

B. Packaging

Mangoes must be packed in such a way as to protect the produce properly.

The materials used inside the package 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 labelling has been done with non-toxic ink or glue.

Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue nor lead to skin defects.

Packages must be free of all foreign matter.

VI. Provisions concerning marking

Each package² must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

A. Identification

Packer and/or dispatcher/shipper:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority³.

² According to the Geneva Protocol, footnote 2, "Package units of produce prepacked for direct sale to the consumer shall not be subject to these marking provisions but shall conform to the national requirements. However, the markings referred to shall in any event be shown on the transport packaging containing such package units".

³ The national legislation of a number of countries requires the explicit declaration of the name and address. However, 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, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.

B. Nature of the produce

- "Mangoes" if the contents are not visible from the outside
- Name of the variety.

C. Origin of the produce

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

D. Commercial specifications

- Class
- Size expressed as minimum and maximum weight
- Size code (optional)
- Number of fruit.

E. Official control mark (optional)

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The OECD Scheme for the Application of International Standards for Fruit and Vegetables has published an explanatory illustrated brochure on the application of this standard. The publication may be obtained from the OECD bookshop at: www.oecdbookshop.org.
