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FRESH ‘CAVENDISH’ BANANA – SPECIFICATION

ICS: 67.080.10

Descriptors: cavendish, fresh banana, requirements, size classification, quality classification, specification

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Committee representation

The Agricultural Industry Standards Committee (ISC A) under whose authority this Malaysian Standard was developed, comprises representatives from the following organisations:

Cameron Highland Flower Growers Association
Department of Agriculture
Department of Standards Malaysia
EPA Management Sdn Bhd
Farmers Organization Authority
Federal Agricultural Marketing Authority
Federation of Livestock Farmers Association
Johor Fish Breeders Association
Malaysian Agricultural Research and Development Institute
Malaysian Agrifood Corporation Berhad
Malaysian Association of Standards Users
Malaysian Fruit Exporters Association
Malaysian Palm Oil Association
Malaysian Rubber Board
Ministry of Agriculture and Agro-based Industry
Ministry of International Trade and Industry
Ministry of Plantation Industries and Commodities
Rubber Industry for Smallholders Development Authority
Universiti Putra Malaysia

The Technical Committee on Fresh Fruits which developed this Malaysian Standard consists of representatives from the following organisations:

Department of Agriculture
Federal Agricultural Marketing Authority
Malaysian Agricultural Research and Development Institute
Malaysian Fruit Exporters Association
SIRIM Berhad (Secretariat)
Universiti Kebangsaan Malaysia
Universiti Putra Malaysia
FOREWORD

This Malaysian Standard was developed by the Technical Committee on Fresh Fruits under the authority of the Agricultural Industry Standards Committee.

This standard is one of the Malaysian Standards on fresh fruits which was established to support the agriculture sectors. 'Cavendish' banana (Musa sp. cv. Cavendish) is popularly taken fresh and has been widely marketed. This Malaysian Standard prescribes the commercial quality requirements of 'Cavendish' banana to be supplied fresh to the consumer after preparation and packaging.

In the development of this Malaysian Standard, reference was made to the MS 1075:1987, Export Specification for Fresh 'Mas' Bananas and Codex Standard for Bananas (Codex Stan 205-1997) relating to the standardisation, grading and commercial quality control of banana.

Compliance with a Malaysian Standard does not of itself confer immunity from legal obligations.
FRESH 'CAVENDISH' BANANA – SPECIFICATION

1. Scope

This Malaysian Standard prescribes the commercial quality requirements of 'Cavendish' banana (Musa sp. cv. Cavendish) to be supplied fresh to the consumer after preparation and packaging. 'Cavendish' banana for industrial processing are excluded.

2. Normative references

The following normative references are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the normative references (including any amendments) applies.

- Malaysian Food Act 1983 and Food Regulations 1985
- MS 78, Method of sampling for fresh fruits
- MS 1784: Part 7, Good Agricultural Practice (GAP) - Part 7: Fruits and Vegetables.

3. Definitions

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

3.1 Blemishes

Mark or marks on fruits such as rust, scarring and discolouration which affect its appearance but will not affect the eating quality.

3.2 Blemished fruit

Fruit with more than 5% of its surface area covered with the blemishes.

3.3 Bruises

Any mechanical injury that causes the peel of the individual banana to become soft and/or discoloured.

3.4 Clean

Practically free of dirt, stains, other foreign materials and odours.

3.5 Chilling injury

Physiological disorder which develops in fruit due to exposure to chilling temperatures below the optimum level for storage. It is characterised by the skin turning black or brown, failure of fruit to ripen satisfactorily and infection by fungal diseases. The optimum storage temperature for 'Cavendish' banana is 14°C.
3.6 Cluster
A clear cut subdivision of a hand containing two or more fingers.

3.7 Damage
Any defect or injury which materially affects the appearance, eating, or shipping qualities of the banana.

3.8 Diameter
The greatest cross sectional distance of an individual finger measured at the right angle to the longitudinal axis.

3.9 Finger
An individual banana fruit.

3.10 Growth cracks
Breaks in the peel due to splitting or tearing.

3.11 Hand
The full complement of fingers found attached to the one section of the peduncle.

3.12 Length
The length is determined along the outside curve from the blossom end to the base of the pedicel where the edible pulp ends.

3.13 Mature
Having reached the stage of development which will ensure a proper completion of the ripening process.

3.14 Off-size fruit
Fruit failing to meet the minimum size requirements for the market.

4. Minimum requirements

4.1 The fruit shall be:

a) sound, clean, smooth, well-formed, mature green and reasonably free from growth cracks, damage and bruises;

b) practically free of pests affecting the general appearance of the produce;

c) practically free of damage caused by pests;

d) free of diseases under the condition that the stalk is intact;
e) in fingers, hands or clusters and shall show a smooth cut from the stalk;

f) free of damage caused by chilling injury;

g) free of abnormal external moisture, excluding condensation following removal from cold storage and those packed under modified atmosphere conditions;

h) free of any foreign smell and/ or taste; and

j) of diameter not less than 2.7 cm.

4.2 The fruit shall comply with those maximum residue limits as specified in the *Malaysian Food Act* 1983 and the *Malaysian Food Regulations 1985*.

5. Classification

5.1 Size classification

The fruits shall be classified according to the length as shown in Table 1.

<table>
<thead>
<tr>
<th>Size</th>
<th>Extra large</th>
<th>Large</th>
<th>Medium</th>
<th>Small</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (cm)</td>
<td>&gt; 20.0</td>
<td>17.1 - 20.0</td>
<td>14.1 - 17.0</td>
<td>13.0 - 14.0</td>
</tr>
</tbody>
</table>

5.2 Quality classification

5.2.1 Each class shall be graded according to its general appearance, quality and condition.

5.2.2 There shall be three quality classifications for banana; Premium, Grade 1 and Grade 2.

5.2.3 The fruit shall be graded according to the quality classification as given in Table 2.
Table 2. Quality classification

<table>
<thead>
<tr>
<th>Quality</th>
<th>Requirement</th>
<th>Tolerance</th>
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<tr>
<td>Premium</td>
<td>The fruit shall be of similar varietal characteristics, well formed and free from blemishes.</td>
<td>5% by number or weight of banana not satisfying the requirements of Premium Grade, but meeting those of Grade 1 or exceptionally, coming within the tolerances of that class.</td>
</tr>
<tr>
<td>Grade 1</td>
<td>The fruit shall be of similar varietal characteristics, fairly well formed and fairly free from blemishes.</td>
<td>10% by number or weight of banana not satisfying the requirements of Grade 1, but meeting those of Grade 2 or exceptionally, coming within the tolerances of that class.</td>
</tr>
<tr>
<td>Grade 2</td>
<td>The fruit shall be of similar varietal characteristics and reasonably free from blemishes. Fruits that are slightly misshapen or with slight bruising or with superficial defects are allowed.</td>
<td>10% by number or weight of banana 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.</td>
</tr>
</tbody>
</table>

6. Packaging

6.1 Where packaging is necessary, the fruit shall be packed in clusters, hands or both.

6.2 The fruit shall be packed in containers of suitable material such as corrugated paper or equivalent.

6.3 Each individual pack shall be marked to give the following information:

a) name of the produce;
b) name and address of the producer (and/or exporter);
c) country of origin;
d) gross or nett weight in kg;
e) size classification; and
f) date of packing, if necessary.

NOTE. Quality classification may be marked on each individual pack.

7. Sampling

Sampling shall be carried out as prescribed in MS 78.
8. Compliance with the specification

Upon testing, when each sample is found to conform to the requirements specified in this standard, the lot, batch or consignment from which the sample has been drawn shall be deemed to comply with this standard.

9. Legal requirements

The produce shall comply with the requirements of the legislation currently in force in Malaysia.
Acknowledgements

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