## DRAFT LAYOUT OF AN OECD EXPLANATORY BROCHURE

(note by the Secretariat)

The text in the draft layout contains the following marks:

The official text of the standard is in **blue bold**. The draft layout contains a sample standard text (based on the 2011 UNECE standard layout) which has to be replaced by the relevant CODEX standard text.

The explanatory text is in *normal italics*.

Notes are in {*curly brackets*}. These texts are not part of the brochure; only facilitate the work of the Rapporteur. They need to be deleted from the final version.

Bananas

On the following pages, the official text of the standard CODEX STAN 205 is indicated in **blue bold**. The OECD interpretative text of the standard is indicated in *black italic*.

## I. DEFINITION OF PRODUCE

This standard applies to commercial varieties of bananas grown from *Musa spp* (AAA), of the *Musaceae* family, in green state, to be supplied fresh to the consumer, after preparation and packaging. Bananas intended for cooking only (plantains) or for industrial processing are excluded. Varieties covered by this Standard are included in the Annex.

## **Illustations:**

Illustration No.	Name of
Photo 1	Dwarf Cavendish
Photo 2	Giant Cavendish
Photo 3	Dwarf Cavendish vs Giant Cavendish
Photo 4	Pacovan
Photo 5	
Photo 6	Red banana (AAB)
Photo 7	Ripened banana
Photo 8	Plantain

## **II. PROVISIONS CONCERNING QUALITY**

#### A. Minimum requirements

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

## - whole (taking the finger as the reference)

Bananas must not have any damage or injury affecting the integrity of the produce.

Illustration No.	Name of illustration
Photo 9	Banana with a damage affecting the flesh
Photo 10	Banana with a damage affecting the flesh
Photo 11	Banana with a damage affecting the flesh

## - sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;

Bananas must be free from disease or serious deterioration which appreciably affects its appearance, edibility or keeping quality. In particular, bananas affected by rotting, even if the signs are very slight but liable to make the produce unfit for consumption upon arrival at its destination, are to be excluded.

Bananas showing the following defects are therefore excluded:

## **Illustrations:**

Illustration No.	Name of illustration
Photo 12	Not sound- mould
Photo 13	Not sound- rot on the crown

## - clean, practically free of any visible foreign matter

Bananas must be practically free of latex, soil, dust, chemical residue or other foreign matter.

The presence of visible foreign matter can detract from commercial presentation and acceptance of bananas. The acceptable limit for "practically free" would be excessive latex or dust. Excessive latex, dust, soiling or any visible chemical residues would lead to the rejection of the produce.

## Illustrations:

Illustration No.	Name of illustration
Photo 14	Unclean (latex)- excessive dirtiness by latex
Photo 15	Unclean (latex)- drops of latex
Photo 16	Unclean (soiled)
Photo 17	Unclean (soiled)
Photo 18	Unclean, phytosanitary residue

## - practically free from pests affecting the general appearance of the produce;

The presence of pests can detract from the commercial presentation and acceptance of the bananas. Therefore, the acceptable limit for "practically free" would be- in all classes - occasional insect, mite or other pest in the package or sample; any colonies would lead to the rejection of the produce.

## - practically free from damage caused by pests

Pest damage affecting the flesh makes the produce unfit for consumption. Therefore, the acceptable limit for "practically free" would be - in all classes- very slight traces of damage caused by pests

## **Illustrations:**

Illustration No.	Name of illustration
Photo 19	Damage caused by spider
Photo 20	Banana affected by sooty mould
Photo 21	Banana affected by mealybug
Photo 22	Practically from pests
Photo 23	Damage caused by thrips
Photo 24	Damage caused by catterpillar
Photo 25	Damage caused by spider mites

# - free of abnormal external moisture, excluding condensation following removal from cold storage, and bananas packed under modified atmosphere conditions;

This provision applies to excessive moisture, for example, free water lying inside the package but does not include condensation on produce following release from cool storage or refrigerated vehicle.

## **Illustration:**

Illustration No.	Name of illustration
Photo 26	Excessive moisture

## - free of any foreign smell and/or taste.

This provision applies to bananas stored or transported under poor conditions, which have consequently resulted in their absorbing abnormal smells and/or tastes, in particular through the proximity of other product which give off volatile odours.

#### - firm

Bananas must not be soft.

## **Illustration:**

Illustration No.	Name of illustration
Photo 27	Firm banana with signals of softness

## - free of damage caused by low temperatures

Bananas are grown in tropical climates therefore are very sensitive to low temperatures.

## **Illustration:**

Illustration No.	Name of illustration
Photo 28	Damage caused by frost
Photo 29	Damage caused by low temperatures during transportation

## - practically free of bruises

Bananas with bruises affecting the flesh sprout are not allowed.

## **Illustration:**

Illustration No.	Name of illustration
Photo 30	Affected by bruises

#### - Free of malformation or abnormal curvature of the fingers

For good packing, the fingers of a cluster should have similar curvature. By cutting the clusters, single more curved fingers can be removed and marketed separately

## **Illustration:**

Illustration No.	Name of illustration
Photo 31	Finger with irregular shape
Photo 32	Malformation of the fingers

#### - With pistils removed

Bananas should have the pistils removed

#### Illustration:

Illustration No.	Name of illustration
Photo 33	With pistils

## With the stalk intact, without bending, fungal damage or dessication

Bananas should have the stalk intact. Stalk not intact, with bending, fungal damage or dessication are not allowed

## **Illustration:**

Illustration No.	Name of illustration
Photo 34	Stalk not intact
Photo 35	Stalk not intact

#### In addition, hands and clusters must include:

## - a sufficient portion of the crown of normal colouring, sound and free of fungal contamination;

Bananas should have enough portion of the crown of normal colouring. The crown should be sound and with not fungal contamination.

#### **Illustration:**

Illustration No.	Name of illustration
Photo 36	Colouring of the crown

#### - a cleanly cut crown, not bevelled or torn, with no stalk fragments.

#### **Illustration:**

Illustration No.	Name of illustration	
Photo 37	Not cleanly cut crown	
Photo 38	Not cleanly cut crown	
Photo 39	Not cleanly cut crown	
Photo 40	Cleanly cut crown	
Photo 41	Not cleanly cut crown	

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

# - to reach the appropriate stage of physiological maturity corresponding to the particular characteristics of the variety;

#### **Illustration:**

Illustration No.	Name of illustration
Photo 42	stage of physiological maturity

#### - to withstand transportation and handling

- to arrive in satisfactory condition at the place of destination.

## B. Classification

Bananas are classified in three classes, as defined below:

(i) "Extra" Class

Bananas in this class must be of superior quality. They must be characteristic of the variety and/or commercial type. The fingers must be free of 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 in the package.

#### ii) Class I

Bananas in this class must be of good quality. They must be characteristic of the variety. The following slight defects of the fingers, 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:

#### - slight defects in shape and colour;

Bananas may be slightly misshapen, however, provided the general appearance of the banana or the package as a whole is not thus impaired.

## - slight skin defects due to rubbing and other superficial defects not exceeding 2 cm2 of the total surface area.

Bananas must not have any damage or injury spoiling the integrity of the produce such as tears in the outer skins, cuts or punctures or other significant physical damage sustained during harvesting and/or post harvest handling. Only slight skin defects or superficial defects not exceeding 2 cm<sup>2</sup> are permitted in this class.

The defects must not, in any case, affect the flesh of the fruit.

#### iii) Class II

This class includes bananas which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above.

Bananas in this class must be of reasonable quality, and are suitable for human consumption

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

- defects in shape and colour, provided the product retains the normal characteristics of bananas;
- skin defects due to scraping, scabs, rubbing, blemishes or other causes not exceeding 4 cm2 of the total surface area.

The defects must not, in any case, affect the flesh of the fruit.

#### **Illustration:**

Illustration No.	Name of illustration	
Photo 43	Regular shape	
Photo 44	Superficial defect	
Photo 45	Defects in colour	
Photo 46	Skin defect due to rubbing	
Photo 47	Practically free from damage caused by pests	

For the purposes of sizing bananas of the Gros Michel and Cavendish sub-groups, the length of the fingers is determined along the outside curve from the blossom end to the base of the pedicel where the edible pulp ends and the diameter is defined as the thickness of a transverse section between the lateral faces. The reference fruit for measurement of the length and grade is:

- for hands, the median finger on the outer row of the hand;

- for clusters, the finger next to the cut section of the hand, on the outer row of the cluster.

The minimum length should not be less than 14.0 cm and the minimum grade not less than 2.7 cm.

#### **Illustrations:**

Illustration No.	Name of illustration
Photo 48	Sizing
Photo 49	Sizing

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

Tolerances are provided to allow for deviation in handling and for natural deterioration of fresh produce over time.

Conformity with tolerances should be determined using at least the Operating Rules for the Conformity Checks as set out in Annex II to the Council Decision Revising the OECD "Scheme" for the Application of International Standards for Fruit and Vegetables  $[C(2006)95]^5$ .

#### A. Quality tolerances i)

#### "Extra" Class

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

ii) Class I

Ten percent by number or weight of bananas not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class

iii) Class II

Ten percent by number or weight of bananas satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting, major imperfections or any other deterioration rendering it unfit for consumption

#### **B.** Size tolerances

For all classes: a total tolerance of 10 per cent, by number or weight, of bananas not satisfying the requirements as regards sizing but falling within the size immediately above or below those indicated in Section 3

III.

## V. PROVISIONS CONCERNING PRESENTATION

#### A. Uniformity

The contents of each package must be uniform and contain only bananas of the same origin, variety and quality.

The visible part of the contents of the package must be representative of the entire contents.

Presentation should not be misleading, i.e. concealing in the lower layers of the package produce inferior in quality and size to that displayed and marked.

#### **Illustrations:**

Illustration No.	Name of illustration
Photo 50	Uniformity
Photo 51	Uniformity
Photo 52	Uniformity

#### B. Packaging

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

Packages must be of a quality, strength and characteristic to protect the produce during transport and handling.

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.

A visible lack of cleanliness in several packages could result in the goods being rejected.

Bananas 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).

#### **Description of Containers**

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the bananas. Packages must be free of all foreign matter and smell.

#### **5.3 PRESENTATION**

The bananas must be presented in hands and clusters (parts of hands) of at least four fingers. Bananas may also be presented as single fingers;

- Clusters with no more than two missing fingers are allowed, provided the stalk is not torn but cleanly cut, without damage to the neighbouring fingers;

- Not more than one cluster of three fingers with the same characteristics as the other fruit in the package may be present per row

## **Illustration:**

Illustration No.	Name of illustration	
Photo 53	Presentation- single finger	
Photo 54	Presentation- cluster	
Photo 55	Presentation- cluster with not more than two fingers missing	

## MARKING OR LABELLING

In the case of packed produce, all particulars must be grouped on the same side of the package, either on a label attached to or printed on the package, with water–insoluble ink.

In the case of reused packages, all previous labels must be carefully removed and/or previous indications deleted.

#### 6.1 CONSUMER PACKAGES

In addition to the requirements of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985), 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 name of the variety.

#### **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.

#### 6.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional)2.

For inspection purposes, the packer is the person or firm responsible for the packaging of the produce (this does not mean the staff that actually carry out the work, who are responsible only to their employer). The code mark is not a trademark, but an official control system enabling the person or firm responsible for packaging to be readily identified. The dispatcher (shipper or exporter) may assume sole responsibility, in which case identification of the "packer" as defined above is optional

#### **6.2.2 Nature of Produce**

Name of the produce if the contents are not visible from the outside. Name of the variety or commercial type (optional).

*The name of the produce may be replaced by a photo or a drawing of the produce.* 

#### 6.2.3 Origin of Produce

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

Marking must include the country of origin, i.e. the country in which the bananas were grown (e.g. Spain). Optionally, district of origin in national, regional or local terms may also be shown.

## **6.2.4 Commercial Identification**

- Bananas in fingers (when appropriate);
- Class;

Stating the class is compulsory.

## - Net weight (optional).

## Illustration:

Illustration No.	Name of illustration
Photo 56	Presentation
Photo 57	Presentation
Photo 58	Presentation
Photo 59	Presentation
Photo 60	Presentation
Photo 62	Marking on the package
Photo 63	Marking on a label

## 6.2.5 Official Inspection Mark (optional)

## 7. CONTAMINANTS

7.1 The produce covered by this Standard shall comply with the maximum levels of the Codex General

Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995).

7.2 The produce covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

## 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), Code of Hygienic Practice for Fresh Fruits and Vegetables (CAC/RCP 53-2003), 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).

Groups	Subgroups	Main cultivar
AA	Sweet-fig	Sweet-fig, Pisang Mas, Amas Date, Bocadillo
AB	Ney Poovan	Ney Poovan, Safet Velchi
AAA	Cavendish	Dwarf Cavendish
		Giant Cavendish
		Lacatan
		Poyo (Robusta)
		Williams
		Americani
		Valery
		Arvis
	Gros Michel	Gros Michel
		Highgate
	Pink Fig	Pink Fig
		Green pink Fig
	Ibota	
AAB	Apple Fig	Apple Fig, Silk
	Pome (prata	Pacovan
		Prata Ana
	Mysore	Mysore, Pisang Ceylan, Gorolo

## LIST OF THE MAIN GROUPS, SUBGROUPS AND CULTIVARS OF BANANAS FOR DESSERT

## Illustrations