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**ECONOMIC COMMISSION FOR EUROPE**

COMMITTEE FOR TRADE, INDUSTRY AND  
ENTERPRISE DEVELOPMENT

Working Party on Standardization of  
Perishable Produce and Quality Development

Meeting of Experts on Coordination of  
Standardization of Fresh Fruit and Vegetables  
(Forty-fifth session, Geneva, 26-29 October 1999)

Item 4 of the provisional agenda

EXAMINATION OF THE QUESTION OF ELABORATING A DRAFT  
UN/ECE STANDARD FOR PINEAPPLES

Note by the Secretariat

At its fifty-third session, the Working Party decided to ask the Meeting of Experts to examine the question of elaborating a draft standard for pineapples, taking into account the work carried out by the Codex Committee on Fresh Fruits and Vegetables. The request was submitted by COLEACP (Comité de liaison Europe-Afrique-Caraïbes-Pacifique) at the urging of Côte d'Ivoire and other West African countries. The proposal below is reproduced in the form in which it was received from Cameroon.

## INITIAL DRAFT STANDARD FOR PINEAPPLES

### 1. DEFINITION OF PRODUCE

This standard applies to commercial varieties of pineapple grown from the species *Ananas comosus* (L.) of the Bromeliaceae family, to be supplied fresh to the consumer after preparation and packing. Pineapples for industrial processing are excluded.

### 2. PROVISIONS CONCERNING QUALITY

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

#### 2.1 MINIMUM REQUIREMENTS

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

- Intact, with the crown trimmed to a length of 8-12 cm;
- Firm and free from deformation;
- Fresh in appearance, including the crown, which must be free of withered or dried leaves;
- Sound: produce affected by rotting or deterioration such as to make it unfit for human consumption is excluded, particularly fruits with unhealed wounds, recent scars, holes, scorches and deep healed or unhealed cracks; the flesh should not have brown marks;
- With a peduncle 10-20 mm in length, cut cleanly and straight across;
- Clean, practically free of any visible foreign matter, including residues of treatment products;
- Free from extensive bruises;
- Practically free from pests;
- Practically free from insect damage;
- Free of damage caused by low temperatures;
- Free of abnormal external moisture;
- Free of any foreign smell or taste.

The produce must be sufficiently developed and present a satisfactory degree of ripeness, account being taken of criteria proper to the variety and/or commercial type, the time of picking and the growing area:

- Minimum sugar content in the pulp is fixed at thirteen (13) degrees Brix;
- A cross-section of the fruit should not reveal flesh which is opaque, fibrous, flavourless or with hollow eyes (whatever the external colouring).

The pineapples should have been harvested carefully. The development and condition of the pineapples should be such that they can:

- Withstand transport and handling;
- Arrive at their destination in satisfactory condition.

## 2.2 CLASSIFICATION

Pineapples are classified in two classes, defined below:

### 2.21 "Extra" Class

- Pineapples in this class must be of superior quality and characteristic of the variety and/or commercial type;
- They must be free from all defects, with the exception of superficial defects that do not affect the general appearance, quality, keeping quality or presentation of the packaged produce;
- They must be sound and very firm in appearance, with well-developed eyes. The crown should be single and straight without shoots;
- Only colourings C2 and C3 as defined below, and C4 for pineapples transported by air, are permitted in this class.

### 2.22 Class I

- This class includes pineapples which do not qualify for inclusion in "Extra" class but satisfy the minimum requirements specified above in 2.1;
- The following defects may be allowed, provided the pineapples retain their essential characteristics as regards quality, keeping quality and presentation:

defects in form and colouring, provided the produce is characteristic of the variety and/or commercial type;

skin defects (grazes, scars, scratches, knocks, bruises and sunburn);

- The defects may in no case affect the flesh of the fruit. The crown must be single or double, straight or slightly curved, without shoots. The maximum incline of the crown(s) may not exceed 60° in relation to the longitudinal axis of the fruit.

## 2.3 CLASSIFICATION BY EXTERNAL COLOURING

The criteria for colouring are as follows:

- C0: fruit entirely green on the outside;
- C1: the beginning of orange-yellow colouring over one quarter of the surface of the fruit;
- C2: orange-yellow colouring over half of the surface of the fruit;
- C3: orange-yellow colouring over two thirds of the surface of the fruit;
- C4: fruit entirely orange-yellow.

## 3. PROVISIONS CONCERNING SIZING

Sizing is determined by the weight of the fruit. The minimum weight for pineapples is fixed at 0.7 kg. The provisions below do not apply to pineapples of the "Queen Victoria" type. Within this weight limit, fruits are classified into the following seven sizes:

- A5: fruits from 2.101-2.400 kg
- A6: fruits from 1.801-2.100 kg
- A8: fruits from 1.501-1.800 kg
- B9: fruits from 1.301-1.500 kg
- B10: fruits from 1.101-1.300 kg
- C12: fruits from 0.901-1.100 kg
- D14: fruits from 0.700-0.900 kg

This terminology, current among professionals in the sector, takes account of the types of packaging required for pineapples.

## 4. PROVISIONS CONCERNING TOLERANCES

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

#### 4.1 QUALITY TOLERANCES

##### 5. "Extra" Class

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

##### 6. Class I

Ten per cent by number or weight of pineapples satisfying neither the requirements of the class, nor the minimum requirements, with the exception of produce affected by rotting or other deterioration rendering it unfit for consumption.

#### 4.2 SIZE TOLERANCES

For both classes: 10% by number or weight of pineapples not corresponding to the requirements of the size class concerned but corresponding to that immediately above or below.

#### 5. PROVISIONS CONCERNING PRESENTATION

##### 5.1 UNIFORMITY

The contents of each package must be uniform and contain only pineapples of the same origin, variety, quality and size. For the "Extra" class, colouring and maturity must be uniform. The visible part of the contents of the package must be representative of the entire contents.

##### 5.2 PACKAGING

The pineapples must be packaged in such a way as to protect them properly.

The materials used inside the package must be new, 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 specification, is allowed provided the printing or labelling has been done with non-toxic ink or glue.

##### 5.3 PRESENTATION

Each package must contain fruits of uniform size.

Packages are characterized by horizontal or vertical arrangement of the fruits, with the following features:

##### 6. Horizontal arrangement

600 mm by 400 mm (external base measurements)

7. Vertical arrangement

- A: 6 fruits 440 mm by 300 mm by 293 mm (external dimensions)  
B: 12 fruits 501 mm by 390 mm by 265 mm (external dimensions)  
C: 12 fruits 501 mm by 376 mm by 245 mm (external dimensions)  
D: 20 fruits 564 mm by 454 mm by 213 mm (external dimensions)

6. PROVISIONS CONCERNING MARKING

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

6.1 IDENTIFICATION

Packer	)	Name and address or
and/or	)	officially issued or
Dispatcher	)	accepted code mark

6.2 NATURE OF PRODUCE

- "PINEAPPLES" if the produce is not visible from the outside;
- Name of the variety.

6.3 ORIGIN OF PRODUCE

"PRODUCE OF (country)" and, optionally, where grown or national, regional or local place name.

6.5 COMMERCIAL SPECIFICATIONS

- Class and degree of colouring;
- Size: size code or weight bracket;
- Number of fruits;
- Net weight in kilograms (optional);
- Tare weight of the packaging;
- Instruction "Store at 8° C".

6.6 OFFICIAL CONTROL MARK (optional)

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