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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

Specialized Section on Coordination of  
Standardization of Fresh Fruit and Vegetables  
Forty-seventh session, Geneva, 15 to 18 May 2001

Item 3 (a) of the Provisional Agenda

**PROPOSAL TO REVISE UN/ECE STANDARD**

Annonas

**Note by the Secretariat:** The following proposal is reproduced in the form in which it was submitted by the delegation of Spain. Proposed additions have been underlined and deletions are ~~crossed out~~.

**UN/ECE STANDARD FFV-47**  
concerning the marketing and commercial  
quality control of

**ANNONAS**  
moving in international trade between and to  
UN/ECE member countries

**I. DEFINITION OF PRODUCE**

This standard applies to the following fruits, classified as "Annonas", to be supplied fresh to the consumer, annonas for industrial processing being excluded.<sup>1</sup>

- Cherimoya of varieties (cultivars) grown from the species *Annona cherimola* Mill.
- Sugar apple of varieties (cultivars) grown from the species *Annona squamosa* L.
- Atemoya hybrid from the species *Annona cherimola* Mill. and *Annona squamosa* L.
- Soursop of varieties (cultivars) grown from the species *Annona muricata* L.

**II. PROVISIONS CONCERNING QUALITY**

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

**A. Minimum requirements**

In all classes, subject to the special provisions for each class and the tolerances allowed, the annonas 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
- practically free from pests
- practically free from damage caused by pests
- free of damage caused by low temperatures
- free of sunburn
- free of abnormal external moisture
- free of any foreign smell and/or taste.

The peduncle must be cut near the fruit.

The development and degree of maturity of the annonas must be such as to enable them:

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

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<sup>1</sup>Other varieties exist grown from annona species (or from hybrids) which are not subject to international trade, and which are not covered by this standard, such as varieties grown from *Annona reticulata* L.

To ensure a suitable degree of commercial maturity, the annonas must present the following characteristics:

- Cherimoya: the skin at harvest time should have begun to turn to a pale green colour, the carpellary walls should have lost their concave appearance and the ribs of the carpellary joints must not be pronounced.
- Sugar Apple : the carpellary segments are pronounced. The groove-like area between the carpellary segments at the time of harvest must turn pale green to yellow.
- Atemoya: the area separating the carpellary segments at the time of harvest must turn pale green to yellow.
- Soursop: the colour of the skin turns from dark green to pale green at the time of harvest, the spines should be slightly fleshy and the distance between them should be about 15 mm.

## **B. Classification**

Annonas are classified in two classes defined below:

(i) ***"Extra" Class***

Annonas in this class must be of superior quality. They must have the shape, development and colouring characteristic of the species and of the variety.

The fruit must be free from all defects and without any alteration of the skin.

The spines of the fruit from Soursop may have slight cracks.

(ii) ***Class I***

Annonas in this class must be of good quality.

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:

- slight defect in shape
- slight defect in development
- slight defect in colouring
- slight alterations of the skin and in the case of Soursop, of the spines, due to rubbing and/or other causes, not exceeding 5 per cent of the surface area of the fruit.

## **III. PROVISIONS CONCERNING SIZING**

Size is determined by the weight of individual fruit.

Sizing is compulsory for all classes.

The minimum size is set at 100 g for Cherimoya, Sugar Apple and Atemoya and 200 g for Soursop.

Annonas must be graded according to the following scales:

**A. Cherimoyas, Sugar Apples and Atemoyas**

<del>Weight scale in grammes</del>	<del>Code size</del>
<del>851 and more</del>	<del>SC</del>
<del>701 – 850</del>	<del>€</del>
<del>551 – 700</del>	<del>GGG</del>
<del>401 – 550</del>	<del>GG</del>
<del>301 – 400</del>	<del>G</del>
<del>226 – 300</del>	<del>M</del>
<del>176 – 225</del>	<del>P</del>
<del>126 – 175</del>	<del>PP</del>
<del>100 – 125</del>	<del>PPP</del>

Cherimoyas, Sugar Apples and Atemoyas are sized according to the following size ranges, with the corresponding maximum permissible variation within the package in grams:

<u>Weight per fruit</u>	<u>Max. variation</u>
<u>100 – 225</u>	<u>75 grams</u>
<u>225 – 425</u>	<u>100 grams</u>
<u>425 – 825</u>	<u>200 grams</u>
<u>&gt;825</u>	<u>----</u>

**B. Soursops**

<b>Weight scale in grammes</b>	<b>Code size</b>
981-1200	4
801-980	5
651-800	6
541-650	7
441-540	9
351-440	11
271-350	14
200-270	20

#### **IV. 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.

##### **A. Quality tolerances**

- (i) *"Extra" Class*  
5 per cent by number or weight of fruit 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*  
10 per cent by number or weight of fruit satisfying neither the requirements of the class nor the minimum requirements, with the exception of fruit affected by rotting, marked bruising or any other deterioration rendering it unfit for consumption.

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

For all classes: 10 per cent by number or weight of fruit satisfying the size immediately below or above that indicated on the package with a minimum of 80 g for Cherimoyas, Sugar Apples and Atemoyas classified in the smallest size (100/125 g) and a minimum of 160 g for Soursops in the smallest size (200/270 g).

#### **V. PROVISIONS CONCERNING PRESENTATION**

##### **A. Uniformity**

The contents of each package must be uniform and contain only fruit 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**

Annonas must be packed in such a way as to protect the produce 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 specifications is allowed provided the printing or labelling has been done with non-toxic ink or glue.

Packages must be free of all foreign matter.

##### **C. Presentation**

Annonas may be presented in one of the following ways:

- packed in a single layer with each fruit wrapped in protecting material which isolates it from the others
- in small packages.

## VI. PROVISIONS CONCERNING MARKING

Each package<sup>2</sup> must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

### A. Identification

Packer	)	Name and address or
and/or	)	officially issued or
Dispatcher	)	accepted code mark. <sup>3</sup>

### B. Nature of produce

- "Cherimoyas", "Sugar Apples", "Atemoyas" or "Soursops", if the contents are not visible from the outside
- Name of the variety (optional).

### C. Origin of 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 weights
- Code number of the size scale, where appropriate, and number of fruit (optional). ~~when it is different from code number~~

### E. Official control mark (optional)

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<sup>2</sup>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.

<sup>3</sup> 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.