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COMMITTEE FOR TRADE, INDUSTRY AND
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Working Party on Standardization of
Perishable Produce and Quality Development

Specialized Section on Coordination of
Standardization of Fresh Fruit and Vegetables
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REPORT OF THE FORTY-EIGHTH SESSION

Addendum 1

Note by the Secretariat: The document contains the revision of the UNECE Standard for Annonas as agreed by the Specialized Section. It is proposed for adoption as a revised UNECE Standard. Proposed additions/amendments have been underlined and deletions are ~~crossed out~~. In addition, as has been done in other standards, the secretariat proposes to include the maturity requirements in a separate subsection. Some provisions have been aligned with the standard layout as decided by the Specialized Section.

FFV-47: Annonas

UNECE 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.¹

- 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.

¹ ~~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.~~

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.

B. Maturity requirements

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.

C. Classification

Annonas are classified in three classes defined below:

(i) *"Extra" Class*

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

In shape, development, size and colouring they must be characteristic of the species and 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 fruit, the quality, the keeping quality and presentation in the package.

~~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.

In shape, development, size and colouring they must be characteristic of the species and the variety.

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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) Class II

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

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

- defect in shape
- defect in development
- defect in colouring
- alterations of the skin and in the case of Soursop, of the spines, due to rubbing and/or other causes, not exceeding 15 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

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

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 in grammes</u>	<u>Max. variation in the package in grammes</u>
<u>100 – 225</u>	<u>75</u>
<u>225 – 425</u>	<u>100</u>
<u>425 – 825</u>	<u>200</u>
<u>>825</u>	<u>300</u>

B. Soursops

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

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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 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**

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 (100/225 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 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)	Name and address or
and/or)	officially issued or
Dispatcher)	accepted code mark. ³

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.

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.

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D. Commercial specifications

- Class
- Size expressed as minimum and maximum weights
- Code number of the size scale, where appropriate
- _____ number of fruit (optional). ~~when it is different from code number~~

E. Official control mark (optional)

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