

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
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ORGANIZATION



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Agenda Item 2(c)

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON FRESH FRUITS AND VEGETABLES

*10th Session,
Mexico City, Mexico, 10-14 June 2002*

UN/ECE STANDARDS FOR FRESH FRUITS AND VEGETABLES

BACKGROUND

1. As established in the Terms of Reference of the Codex Committee on Fresh Fruits and Vegetables, the Committee is entrusted to elaborate worldwide standards and codes of practice as may be appropriate for fresh fruits and vegetables. This task should perform in consultation with the UN/ECE Working Party on Standardization of Perishable Produce with particular regard to ensuring that there is not duplication of standards or codes of practice and that they follow the same broad format.¹
2. In regard to cooperation between UN/ECE and Codex in the elaboration of fresh fruit and vegetables standards, the need for close cooperation in order to avoid duplication was reiterated by the 43rd Session of the Codex Executive Committee (Geneva, Switzerland, 4-7 June 1996), and the suggestion was made that UN/ECE standards should be used as a starting point for draft Codex Standards where appropriate. On that occasion, the Executive Committee requested that relevant UN/ECE standards be distributed as working documents for the Codex Committee on Fresh Fruits and Vegetables when like products were being considered.²
3. In addition, the 46th Session of the CCEXEC (Rome, Italy, 24-25 June 1999) stressed the need for exchanges of information between the two parties concerned while recognizing that harmonization of standards for these commodities was important and that the broadest possible consensus on all international standards needed to be achieved.³
4. The Codex Alimentarius Commission has also stressed the need for the CCFFV to cooperate and coordinate with the UN/ECE towards the elaboration of harmonized standards without duplication of effort. While avoiding any unnecessary duplication of work, the collaboration would benefit both Codex and UN/ECE by allowing the Commission to use UN/ECE standards as a base for developing Codex standards and in doing so to give UN/ECE the international recognition to its standards.⁴
5. Since the CCFFV is currently discussing a Draft Codex Standards for Oranges, and Proposed Draft Codex Standards for Apples, Table Grapes and Tomatoes as well as finalizing Sections on Sizing (Limes, Pummelos and Grapefruits) for which there are already UN/ECE standards that were taken as reference when elaborating the aforesaid Codex standards, the Codex Secretariat, in compliance with the recommendation of the Executive Committee, has attached to this document the UN/ECE Standards for Citrus Fruits, Apples and Pears, Table Grapes and Tomatoes for consideration by the Committee when discussing the corresponding Codex standards at its next session.

¹ Codex Alimentarius Procedural Manual, 12th Edition, pages 113-114

² ALINORM 97/3, para. 15

³ ALINORM 99/4, para. 19

⁴ ALINORM 95/37, para. 32 & ALINORM 99/37, para. 206

ECONOMIC COMMISSION FOR EUROPE
COMMITTEE FOR TRADE, INDUSTRY AND ENTERPRISE DEVELOPMENT
Working Party on Standardization of Perishable Produce and Quality Development

Fifty-sixth session, Geneva, 6 to 8 November 2000

REPORT OF THE FIFTY-SIXTH SESSION

Addendum 3

Note by the secretariat

This document contains the revised UN/ECE Standard for Citrus Fruit (FFV-14) as adopted by the Working Party.

UN/ECE STANDARD FFV-14
concerning the marketing and commercial
quality control of
CITRUS FRUIT
moving in international trade between and to
UN/ECE member countries

I. DEFINITION OF PRODUCE¹

This standard applies to the following fruit, classified as "citrus fruit", to be supplied fresh to the consumer, citrus fruit for industrial processing being excluded:

- lemons of varieties (cultivars) grown from the species *Citrus limon* (L.) Burm f.
- limes of varieties (cultivars) grown from the species *Citrus latifolia* (Yu. Tan.) Tan. which is a large fruited acid lime known also as Bearss, Persian, Tahiti and its hybrids.
- mandarines (*Citrus reticulata* Blanco), including satsumas (*Citrus unshiu* Marcow.), clementines (*Citrus clementina* Hort. ex Tan.), common mandarines (*Citrus deliciosa* Ten.)- and tangerines (*Citrus tangerina* Hort. ex Tan.) grown from these species and its hybrids.
- oranges of varieties (cultivars) grown from the species *Citrus sinensis* (L.) Osb.
- grapefruits of the varieties (cultivars) grown from the species *Citrus paradisi* Macf. and its hybrids.
- pummelos or Shaddock of varieties (cultivars) grown from the species *Citrus maxima* (Burm.) Merr. and its hybrids.

.II. PROVISIONS CONCERNING QUALITY

The purpose of the standard is to define the quality requirements of the citrus fruit 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 citrus fruit must be:

- intact
- free of bruising and/or extensive healed over cuts
- 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 signs of internal shrivelling
- free of damage caused by low temperature or frost
- free of all abnormal external moisture
- free of any foreign smell and/or taste.

The citrus fruit must have been carefully picked and have reached an appropriate degree of development and ripeness account being taken of criteria proper to the variety, the time of picking and the growing area .

¹ Information on botanical names taken from the GRIN database see www.ars-grin.gov.

The development and state of ripeness of the citrus fruit must be such as to enable them:

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

Citrus fruit meeting this ripeness requirement may be "degreened". This treatment is permitted only if the other natural organoleptic characteristics are not modified. It shall be carried out in the manner prescribed by the administrative authorities in each country and under their supervision.

B. Maturity requirements

Maturity of citrus fruit is defined by the following parameters specified for each species below:²

1. minimum juice content
2. minimum total soluble solids content (TSS), i.e. minimum sugar content
3. colouring

The degree of colouring shall be such that, following normal development the citrus fruit reach the colour typical of the variety at their destination point.

Lemons

- Minimum juice content:

Verdelli and Primofiore lemons:	20%
Other lemons:	25%
- Colouring: must be typical of the variety. However fruits with a green (but not dark green) colour are allowed provided they satisfy the minimum requirements as to juice content.

Limes

- Minimum juice content: 42 %
- Colouring: must be typical of the variety on at least two-thirds of the total fruit surface. The fruit should be green but may show discolouring (yellow patches) up to 30 % of its surface.

Satsumas, clementines, other mandarin varieties and their hybrids

Satsumas other mandarin varieties and their hybrids:	33%
Clementines :	40%

- Colouring: must be typical of the variety on at least one-third of the surface of the fruit.

Oranges²

Thomson Navel and Tarocco:	30%
Washington Navel:	33%
Other varieties:	35%

- Colouring:³ must be typical of the variety. However, fruits with light green colour are allowed, provided it does not exceed one-fifth of the total surface of the fruit.

Grapefruits

- Minimum juice content: 35%
- Minimum sugar content (TSS): 9 % for Oroblanco
- Colouring: must be typical of the variety. However, fruit with a greenish colour (green in Oroblanco) are allowed provided they meet with the minimum requirements as to juice content..

² *Reservation of Israel: The parameter of sugar/acid ratio should be included in the standard*

² *Reservation of Israel: A minimum sugar/acid ratio of 6.0:1 for oranges and 5.5:1 for pigmented oranges should be included in the standard.*

³ *Reservation of Belgium, Denmark, Germany, Netherlands, Slovakia, Sweden and United Kingdom:*

Green skinned oranges should be allowed provided their maturity requirements conform with the following parameters:

- minimum juice content: 38 %

- minimum sugar/acid ratio: 6,5:1

Pummelos (Shaddock)

- Minimum sugar content (TSS): 8 %
- Colouring: must be typical of the variety on at least two-thirds of the surface of the fruit.

C. Classification

Citrus fruit are classified in three classes defined below:

(i) "Extra" Class

Citrus fruit in this class must be of superior quality. In shape, external appearance, development and colouring they must be characteristic of the variety and/or commercial type.

They must be free from 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 the package.

(ii) Class I

Citrus fruit in this class must be of good quality. They must be characteristic of the variety and/or commercial type.

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 colouring
- slight skin defects occurring during the formation of the fruit, such as silver scurfs, russets, etc.
- slight healed defects due to a mechanical cause such as hail damage, rubbing, damage from handling, etc.

(iii) Class II

This class includes citrus fruit 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 citrus fruit retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defect in shape
- defect in colouring
- rough skin
- skin defects occurring during the formation of the fruit, such as silver scurfs, russets, etc.
- healed defects due to a mechanical cause such as hail damage, rubbing, damage from handling, etc.
- superficial healed skin alterations
- slight and partial detachment of the pericarp for oranges (which is allowed for satsumas, clementines, and other mandarin varieties and their hybrids).

III. PROVISIONS CONCERNING SIZING

Size is determined by the maximum diameter of the equatorial section of the fruit.

A. Minimum size

Fruits of less than the following minimum sizes are excluded:

Lemons	45 mm
Limes	42 mm
Satsumas	
other mandarin varieties and their hybrids	45 mm
Clementines	35 mm
Oranges	53 mm
Grapefruit and its hybrids	70 mm
Pummelos	110 mm

B. Size scales

The scales of sizes are as follows:

Lemons		Limes	
Size Code	Diameter in mm	Size Code	Diameter in mm
0	79 - 90		
1	72 - 83	1	58 - 67
2	68 - 78	2	53 - 62
3	63 - 72	3	48 - 57
4	58 - 67	4	45 - 52
5	53 - 62	5	42 - 49
6	48 - 57		
7	45 - 52		

Satsumas, clementines, and other mandarin varieties and their hybrids		Oranges	
Size Code	Diameter in mm	Size Code	Diameter in mm
1 - XXX	78 and above		
1 - XX	67 - 78		
1 - X	63 - 74	0	92 - 110
2	58 - 69	1	87 - 100
3	54 - 64	2	84 - 96
4	50 - 60	3	81 - 92
5	46 - 56	4	77 - 88
6 ⁴	43 - 52	5	73 - 84
7	41 - 48	6	70 - 80
8	39 - 46	7	67 - 76
9	37 - 44	8	64 - 73
10	35 - 42	9	62 - 70
		10	60 - 68
		11	58 - 66
		12	56 - 63
		13	53 - 60

Grapefruit and its hybrids		Pummelos	
Size Code	Diameter in mm	Size Code	Diameter in mm
1	109 - 139	1	156 - 170
2	100 - 119	2	148 - 162
3	93 - 110	3	140 - 154
4	88 - 102	4	132 - 146
5	84 - 97	5	123 - 138
6	81 - 93	6	116 - 129
7	77 - 89	7	110 - 118
8	73 - 85		
9	70 - 80		

C. Uniformity

Uniformity in size is achieved by the above mentioned size scales, unless otherwise stated as follows:

- (i) For fruit arranged in regular layers in the package the maximum difference between the smallest and the largest fruit must not exceed the following maxima:

⁴ Size below 45 mm refer only to clementines.

	Size Code	Maximum difference between fruit in the same package in mm
Lemons	0 - 7	7
Limes	1 - 5	7
Satsumas, clementines, other mandarin varieties and their hybrides	1 - 4	9
	5 - 6	8
	7 - 10	7
Oranges	0 - 2	11
	3 - 6	9
	7 - 13	7

- (ii) For fruit not arranged in regular layers in packages and fruit in individual packages for direct sale to the consumer made up by number of fruit, the difference between the smallest and the largest fruit in the same package must not exceed the range of the appropriate size grade in the size scale.
- (iii) For fruit in bulk bins and fruit in individual packages for direct sale to the consumer made up by weight of fruit, the maximum size difference between the smallest and the largest fruit in the same lot or package must not exceed the range obtained by grouping three consecutive sizes in the size scale.

IV. PROVISIONS CONCERNING TOLERANCES

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

A. Quality tolerances

- (i) *"Extra" Class*
- 5 per cent by number or weight of citrus 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 citrus 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 citrus fruit 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. Within this tolerance, a maximum of 5 per cent is allowed of fruit showing slight superficial unhealed damage, dry cuts or soft and shrivelled fruit.

B. Size tolerances

For all classes and types of presentation: 10 per cent by number or weight of citrus fruit corresponding to the size immediately below and/or above that (or those, in the case of the combination of three sizes) mentioned on the packages or the transport documents is allowed.

In any case, the tolerance of 10 per cent applies only to fruit not smaller than the following minima:

Lemons	43 mm
Limes	40 mm
Satsumas, other mandarin varieties and their hybrids	43 mm
Clementines	34 mm
Oranges	50 mm
Grapefruit and its hybrids	67 mm
Pummelos	98 mm

V. PROVISIONS CONCERNING PRESENTATION**A. Uniformity**

The contents of each package, or lot for produce presented in bulk, must be uniform and contain only citrus fruit of the same origin, variety or commercial type, quality, and size, and appreciably of the same degree of ripeness and development.

In addition, for the "Extra" Class, uniformity in colouring is required.

The visible part of the contents of the package, or lot for produce presented in bulk, must be representative of the entire contents.

B. Packaging

The citrus fruit 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.

If the fruit are wrapped, thin, dry, new and odourless⁵ paper must be used.

The use of any substance tending to modify the natural characteristics of the citrus fruit, especially its taste or smell⁵, is prohibited.

Packages, or lots for produce presented in bulk, must be free of all foreign matter. However, a presentation where a short (not wooden) twig with some green leaves adheres to the fruit is allowed.

C. Presentation

The citrus fruit may be presented:

- (a) arranged in regular layers in packages.
- (b) not arranged in regular layers in packages or in bulk bins. This type of presentation is only allowed for Classes I and II.
- (c) in individual packages for direct sale to the consumer of a weight less than 5 kg either
 - made up by number of fruit or
 - made up by weight of fruit.

VI. PROVISIONS CONCERNING MARKING

Each package⁶ must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

For citrus fruit transported in bulk these particulars must appear on a document accompanying the goods.

A. Identification

Packer	)	Name and address or
and/or	)	officially issued or
Dispatcher	)	accepted code mark ⁷

B. Nature of produce

- Name of the species if the produce is not visible from the outside, except for satsumas, clementines, other mandarin varieties and their hybrids for which the name of the species or variety is compulsory.
- Name of the variety, for oranges
- Name of the type:

⁵ *The use of preserving agents or any other chemical substance liable to leave a foreign smell on the skin of the fruit is permitted where it is compatible with the regulations of the importing country.*

⁶ *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.*

⁷ *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.*

- for lemons: the indication "Verdelli" and "Primofiore" where appropriate
- for clementines: the indication "Clementines, pipless", "Clementines" (1 to 10 pips), "Clementines with pips" (more than 10 pips) where appropriate.
- for grapefruit and its hybrids: the indication "pink" or "red" where appropriate
- for pummelos: the indication "pink" or "red" where appropriate.

C. Origin of produce

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

D. Commercial specifications

- Class
- Size code for fruit presented in accordance with the size scale or the lower and the upper limiting size code in the case of three consecutive sizes of the size scale
- Size code and number of fruit, in the case of fruit arranged in layers in the package
- Where appropriate, mention of the preserving agents or other chemical substance used, where such use is compatible with the regulations of the importing country.⁸

E. Official control mark (optional)

Published 1963
Revised 1992, 2000
The UN/ECE Standard for Citrus Fruit
has led to an explanatory brochure published by the OECD Scheme

⁸ *Reservation from Chile.*

ECONOMIC COMMISSION FOR EUROPE
 COMMITTEE FOR TRADE, INDUSTRY AND ENTERPRISE DEVELOPMENT
Working Party on Standardization of Perishable Produce and Quality Development

(Fifty-sixth session, Geneva, 6 to 8 November 2000)

REPORT OF THE FIFTY-SIXTH SESSION

Addendum 1

Note by the secretariat

This document contains the revised UN/ECE Standard for Apples and Pears (FFV-01) as adopted by the Working Party.

UNECE STANDARD FFV-01
 concerning the marketing and commercial
 quality control of
APPLES AND PEARS
 moving in international trade between and to
 UN/ECE member countries

I. DEFINITION OF PRODUCE

This standard applies to apples and pears of varieties (cultivars) grown from *Malus domestica Borkh.* and *Pyrus communis L.* to be supplied fresh to the consumer, apples and pears for industrial processing being excluded.

II. PROVISIONS CONCERNING QUALITY

The purpose of the standard is to define the quality requirements of apples and pears 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, apples and pears 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 abnormal external moisture
- free of any foreign smell and/or taste.

In addition, they must have been carefully picked.

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

- to continue their maturing process and to reach the degree of maturity required in relation to the varietal characteristics¹
- to withstand transport and handling, and
- to arrive in satisfactory condition at the place of destination.

B. Classification

Apples and pears are classified in three classes defined below:

(i) **"Extra" Class**

Apples and pears in this class must be of superior quality. In shape, size and colouring they must be characteristic of the variety² and the stalk must be intact.

The flesh must be perfectly sound.

¹ Due to varietal characteristics of the Fuji variety concerning maturity at harvest, radial watercore is permitted providing it is contained within the vascular bundles of each fruit.

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.

Pears must not be gritty.

(ii) **Class I**

Apples and pears in this class must be of good quality. In shape, size and colouring they must be characteristic of the variety.²

The flesh must be perfectly sound.

The following slight defects, however, may be allowed, on individual fruit provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- a slight defect in development
- a slight defect in colouring
- slight skin defects which must not extend over more than:
 - 2 cm in length for defects of elongated shape
 - 1 cm² of total surface area for other defects, with the exception of scab (*Venturia inaequalis*), which must not extend over more than 0.25 cm² cumulative in area.
 - slight bruising not exceeding 1 cm² in area and not discoloured.

For apples the stalk may be missing, provided the break is clean and the adjacent skin is not damaged. For pears the stalk may be slightly damaged.

Pears must not be gritty.

(iii) **Class II**

This class includes apples and pears which do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.²

The flesh must be free from major defects.

The following defects are allowed provided the fruit retains its essential characteristics as regards the quality, the keeping quality and presentation.

- defects in shape
- defects in development
- defects in colouring
- skin defects which must not extend over more than:
 - 4 cm in length for defects of elongated shape
 - 2.5 cm² total surface area for other defects, including slightly discoloured bruising, with the exception of scab (*Venturia inaequalis*), which must not extend over more than 1 cm² cumulative in area.

III. PROVISIONS CONCERNING SIZING

Size is determined by maximum diameter of the equatorial section or by weight. However, when sizing by weight, the minimum weight must ensure all fruit, as appropriate, meet the minimum diameter sizes listed below:

A minimum size by diameter is required for all classes as follows:

² The criteria for colouring and russeting are given in the Annex of this standard.

	Extra	Class I	Class II
Apples ^{3 4}			
Large fruited varieties ⁵	65 mm	60 mm	60 mm
Other varieties	60 mm	55 mm	50 mm
Pears			
Large fruited varieties ⁵	60 mm	55 mm	55 mm
Other varieties	55 mm	50 mm	45 mm

Exceptionally, and for summer pears included in the Annex of this standard, no minimum size will be laid down for consignments dispatched between 10 June and 31 July (inclusive) of any year.

To ensure there is uniformity of size within a package, the difference in diameter between fruit in the same package shall be limited to:⁶

- 5 mm for "Extra" Class fruit and for Class I and II fruit packed in rows and layers⁷
- 10 mm for Class I fruit packed in bulk in the package or in pre-packages.⁸

There is no sizing uniformity limit for Class II fruit packed in bulk in the package or in pre-packages.

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 apples or pears 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 apples or pears not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class. However, pears without stalks are not included in this tolerance.

(iii) Class II

10 per cent by number or weight of apples or pears 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.

Within this tolerance, a maximum of 2 per cent by number or weight of fruit is allowed which shows the following defects:

- serious attacks of cork (bitter pit) or water-core
- slight damage or unhealed cracks
- very slight traces of rot
- presence of internal feeding pests and/or damage to the flesh caused by pests.

² The criteria for colouring and russeting are given in the Annex of this standard.

³ The European Community has adopted larger minimum sizes for apples as follows:

Large fruit varieties: 70 mm for "Extra" Class; 65 mm for Classes I and II.

Other varieties: 60 mm for Class "Extra"; 55 for Class I and II.

⁴ Australia and New Zealand have placed reservations against changing the present minimum sizes.

⁵ The non-exhaustive list of large fruited varieties is given in the Annex of this standard.

⁶ Reservation from Chile concerning the Fuji variety.

⁷ However, for apples of the varieties Bramley's Seedling (Bramley, Triomphe de Kiel) and Horneburger, the difference in diameter may amount to 10 mm.

⁸ However, for apples of the varieties Bramley's Seedling (Bramley, Triomphe de Kiel) and Horneburger the difference in diameter may amount to 20 mm.

B. Size tolerances

For all classes:

- (a) for fruit which is subject to the rules of uniformity, 10 per cent by number or weight of fruit corresponding to the size immediately above or below that marked on the package, with, for fruit classified in the smallest grade allowed a maximum variation of 5 mm below the minimum;
- (b) for fruit which is not subject to the rules of uniformity, 10 per cent by number or weight of fruit below the minimum size laid down, with a maximum variation of 5 mm below the minimum size.

V. PROVISIONS CONCERNING PRESENTATION**A. Uniformity**

The contents of each package must be uniform and contain only apples or pears of the same origin, variety, quality, and size (if sized) and the same degree of ripeness.

In the case of the "Extra" Class, uniformity also applies to colouring.

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

Uniformity of variety is not required for apples in prepacked units of a net weight not exceeding 2 kg. If different varieties of apples are sold in the same package, uniformity of origin is not required.

B. Packaging

The apples and pears 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

For "Extra" Class fruit must be packed in layers.

VI. PROVISIONS CONCERNING MARKING

Each package⁹ 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. ¹⁰

B. Nature of produce

- "Apples" or "pears", if the contents are not visible from the outside
- Name of the variety or varieties (where appropriate)

C. Origin of produce

- Country or countries (where appropriate) of origin and, optionally, district where grown, or national, regional or local place name.

D. Commercial specifications

- Class
- Size, or for fruit packed in rows and layers, number of units.

⁹ 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.

¹⁰ 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.

If identification is by the size, this should be expressed:

- (a) for produce subject to the uniformity rules, as minimum and maximum diameters;
- (b) for produce not subject to the uniformity rules, the diameter of the smallest fruit in the package.

E. Official control mark (optional)

Published 1960
Revised 1996, 2000
The UN/ECE Standard for Apples and Pears
has led to an explanatory brochure published by the OECD Scheme

ANNEX

1. Colouring, Russeting and Size Criteria for Apples

Colour Groups and Codes

Colour group	A	B	C
	varieties with red colouring	varieties with mixed red colouring	striped varieties, slightly coloured
Class Extra	3/4	1/2	1/3
Class I	1/2	1/3	1/10
Class II	1/4	1/10	–

R = Variety for which russeting is a characteristic of the skin and is not a defect if it corresponds to the typical appearance of the variety.

L = Large fruit variety

Variety	Synonyms	Colour group	Russeting	Size
Abbondanza		C		
Akane	Prime Rouge, Tohoku 3	B		
Alkmene		C		
Altländer				L
Apollo		C		L
Arlet		C		L
Ashmead's Kernel			R	
Belfort	Pella	B		
Bellavista	Vista Bella	B		
Belle de Boskoop and mutations			R	L
Belle fleur double				L
Berlepsch		C		
Bismarck				L
Black Ben Davis		A		L
Black Stayman		A		L
Blenheim				L
Boskoop rouge	Red Boskoop	B	R	L
Braeburn		C		L
Bramley's Seedling	Bramley, Triomphe de Kiel			L
Brettacher				L
Calvilles, Groupe des				L
Cardinal		B		
Carmio		A		
Carola	Kalco	C		L
Casanova de Alcobaça		C		
Charden				L
Charles Ross				L
Chata Encarnada		C		
Cherry Cox		B		
Commercio		C		
Cortland		B		L
Cox's Orange Pippin (Cox orange and mutations ^a)		C	R	
Cox Pomona				L
Crimson Bramley				L
Cunha	Riscadinha	C		
Delicious ordinaire	Ordinary Delicious	B		
Delicious Pilafa		B		L
Democrat		A		L
Discovery		B		

Dunn's Seedling			R	
Egremont Russet			R	
Elan				L
Ellison's orange	Ellison	C		L
Elstar		C		
Finkenwerder				L
Fortuna Delicious		A		L
Fortune			R	
Fuji		C		L
Gala		C		
Garcia				L
Gelber Edel				L
Glorie von Holland				L
Gloster 69		B		L
Golden Delicious and mutations				L
Golden Russet			R	
Graham	Graham Royal Jubilé			L
Granny Smith				L
Gravenstein rouge	Red Gravenstein	B		L
Gravensteiner	Gravenstein			L
Greensleeves				L
Grossherzog Friedrich von Baden				L
Herma				L
Honey gold				L
Horneburger				L
Howgate Wonder				L
Idared		B		L
Imperatore	Emperor Alexander	C		L
Ingrid Marie		B	R	
Jacob Fisher				L
Jacques Lebel				L
Jamba		C		L
James Grieve and mutations				L
James Grieve rouge	Red James Grieve	B		L
Jerseymac		B		
Jester				L
Jonagold ^b		C		L
Jonagored		A		L
Jonathan		B		
Jupiter				L
Karmijn de Sonnaville		C	R	L
Katy	Katja	B		
Kent			R	
Kidd's Orange Red		C	R	
King David		A		
Königin	The Queen			L
Lane's Prince Albert				L
Laxton's Superb		C	R	
Lemoen Apfel	Lemoenappel			L
Lobo		B		
Lord Lambourne		C		
Maigold		C		L
Mantet rouge	Red Mantet	C		
McIntosh Red		B		

Melodie		C		
Melrose		C		L
Mingan	Peromingan, Mingana		R	
Morgenduft	Rome Beauty	B		L
Musch				L
Mutsu	Crispin			L
Normanda		C		L
Notarapfel	Notaris, Notarisappel			L
Nueva Europa		C		
Nueva Orleans		B		L
Odin		B		
Oldenburg		C		
Ontario		B		L
Oregon		A		L
Ortell		B		
Ozarkgold				L
Pater v.d. Elsen				L
Paula Red		B		
Pero de Cirio				L
Pero Mingan				L
Piglos		B		L
Pimona		C		
Pinova		C		L
Piros		C		L
Pomme Raisin		C		
Rambour d'hiver				L
Rambour Franc		B		
Red Berlepsch		B		
Red Delicious and mutations (Richared, Starking, Starkrimson, Well Spur, Oregon, Fortuna Delicious, Top Red and Royal Red)		A		L
Red Rome		A		
Red York		A		
Reglindis		C		L
Reine des Reinettes	Gold Parmoné	C		
Reineta Encarnada		B		
Reineta Roja del Canada		B		L
Reinetta de Orléans				L
Reinette Blanche du Canada			R	L
Reinette de France				L
Reinette de Landsberg				L
Reinette étoilée		A		
Reinette grise			R	L
Reinette grise du Canada			R	L
Roja de Benjama	Verruga, Roja del Valle, Clavelina	A		
Rose de Berne		A		
Rose de Caldaro	Kalterer	C		
Royal Gala	Tenroy	A		
Royal Red		A		L
Saure Gamerse	Gamerse zure			L
Septer				L
Shampion		C		L
Signe Tillisch				L

Spartan		A		
St. Edmunds Pippin			R	
Stalapfel		B		
Stark Delicious		A		
Starking		A		L
Starkrimson		A		L
Starks's Earliest		C		
Stayman Winesap		B		L
Staymared	Staymanred, Red Stayman	A		L
Sturmer Pippin			R	
Summerred		B		
Sunset			R	
Suntan			R	
Top Red		A		L
Toreno			R	
Transparente de Croncels	Croncels			L
Triomphe de Luxembourg				L
Tydemans's Early Worcester	Tydemans's Early	B		L
Wagener		B		
Wealthy		B		
Winesap	Winter Winesap	A		
Winston		C		
Winter Banana				L
Worcester Pearmain		B		
Yellow Newton	Albermarle Pippin		R	
York		B		
Zabergäu				L
Zigeunerin				L

a) Except Cherry Cox

b) However, for the variety Jonagold at least one-tenth of the surface of the fruit in Class II must be striped with red-colouring

2. Size Criteria for Pears

L = Large fruit variety

SP = Summer pear, for which no minimum size is required in respect of consignments sent between 10 June and 31 July of any year.

Variety	Synonyms	Size
Abbé Fétel		L
Abugo o Siete en Boca		SP
Alexandrine Douillard		L
André Desportes		
Azucar Verde	de confitar	SP
Bergamotten		SP
Beurré Alexandre Lucas	Lucas	L
Beurré Clairgeau		L
Beurré d' Aremberg		L
Beurré Diel		L
Beurré Giffard		SP
Beurré Gris		SP
Beurré Lebrun		L
Beurré précoce Morettini		SP
Blanca de Aranjuez	Agua de Aranjuez, Espadona,	SP
Buntrocks		SP
Carapineira		SP

Carusella		SP
Castell	Castell de Verano	SP
Catillac	Pondspear, Ronde Gratio, Grand Monarque, Chartreuse	L
Claude Blanchet		SP
Colorée de Juillet	Bunte Juli	SP
Condoula		SP
Conférence		
Coscia	Ercolini	SP
Curé	Curato, Pastoren, Del cura de Ouro, Espadon de invierno, Bella de Berry, Lombardia de Rioja, Batall de Campana	L
D. Joaquina	Doyenné de Juillet	SP
Devoe		L
Don Guido		L
Doyenné d'hiver		L
Doyenné du Comice		L
Duchesse d'Angoulême		L
Empereur Alexandre	Beurré Bosc, Beurré d'Apremont, Bosc	L
Flor de invierno		L
Général Leclerc		L
Gentile		SP
Gentile Bianca di Firenze		SP
Gentilona		SP
Giardina		SP
Gramshirtle		SP
Grand Champion		L
Hartleffs		SP
Jeanne d'Arc		L
Leonardeta	Mosqueruela, Margallon, Colorada de Alcanadre, Leonarda de Magallon	SP
Marguerite Marillat		L
Moscattella		SP
Oomskinderen		SP
Packham's Triumph	Williams d'Automne	L
Passe Crassane		L
Perita de San Juan		SP
Pérola		SP
Précoce de Trévoux		SP
Précoce di Altedo		SP
Président Drouart		L
Santa Maria	Santa Maria Morettini	SP
Souvenir du Congrès	Kongress, Congress	L
Spadoncina	Agua de Verano, Agua de Agosto	SP
Triomphe de Vienne		L
Wilder		SP
William's Duchess	Pitmaston	L
Withhöftsbirne		SP

3. Russetting

For varieties not marked with an R in the list above, russetting is allowed within the following limits ¹¹

	Extra	I	II	Tolerances for Class II
(i) <u>Brown patches</u>	not outside the stem cavity	may go slightly beyond the stem or pistil cavities	may go beyond the stem or pistil cavities	fruit not seriously detracting from the appearance and condition of the package
(ii) <u>Russetting</u>	not rough	not rough	slightly rough	
<u>thin net-like russetting</u> (not contrasting strongly with the general colouring of the fruit)	slight and isolated traces of russetting not altering the general appearance of the fruit and of the package	Maximum surface area of the fruit permitted 1/5	Maximum surface area of the fruit permitted 1/2	fruit not seriously detracting from the appearance and condition of the package
<u>heavy</u>	none	1/20	1/3	fruit not seriously detracting from the appearance and condition of the package
<u>Cumulative defects</u> (with the exception of brown patches which are excluded from these cumulative defects) In no case may thin russetting and heavy russetting taken together exceed a maximum of:		1/5	1/2	fruit not seriously detracting from the appearance and condition of the package

¹¹ For other varieties, the control services will operate by comparison

ECONOMIC COMMISSION FOR EUROPE
COMMITTEE FOR TRADE, INDUSTRY AND ENTERPRISE DEVELOPMENT
Working Party on Standardization of Perishable Produce and Quality Development

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REPORT OF THE FIFTY-SEVENTH SESSION

Addendum 7

Note by the secretariat

This document contains the UNECE Recommendation for Table Grapes (FFV-19), as adopted by the Working Party for a two-year trial period.

UNECE RECOMMENDATION FFV-19
concerning the marketing and commercial
quality control of

TABLE GRAPES
moving in international trade between and to
UN/ECE member countries

I. DEFINITION OF PRODUCE

This standard applies to table grapes of varieties (cultivars) grown from *Vitis vinifera L.* to be supplied fresh to the consumer, table grapes for industrial processing being excluded.

II. PROVISIONS CONCERNING QUALITY

The purpose of the standard is to define the quality requirements of table grapes 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, bunches and berries must be:

- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean and practically free of any visible foreign matter
- practically free from pests
- practically free from damage caused by pests
- free of abnormal external moisture
- free of any foreign smell and/or taste.

In addition, berries must be:

- intact
- well formed
- normally developed.

Pigmentation due to sun is not a defect.

Bunches must have been carefully picked.

The bunches must be sufficiently developed and display satisfactory ripeness.

The fruit must be such that the juice of the berries has a refractometric index of at least:

- 12° Brix for the Alphonse Lavallee, Cardinal and Victoria varieties,
- 13° Brix for all other seeded varieties,
- 14° Brix for all seedless varieties.

In addition all varieties must have satisfactory sugar/acid ratio levels.

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

- to withstand transport and handling, and

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

B. Classification

The table grapes are classified in three classes defined below:

(i) **"Extra" Class**

Table grapes in this class must be of superior quality. In shape, development and colouring, the bunches must be typical of the variety, allowing for the district in which they are grown, and have no defects. Berries must be firm, firmly attached, evenly spaced along the stalk and have their bloom virtually intact.

(ii) **Class I**

Table grapes in this class must be of good quality. In shape, development and colouring the bunches must be typical of the variety, allowing for the district in which they are grown. Berries must be firm, firmly attached and, as far as possible, have their bloom intact. They may, however, be less evenly spaced along the stalk than in the "Extra" Class.

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 defects in shape
- slight defects in colouring
- very slight sun scorch affecting the skin only.

(iii) **Class II**

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

The bunches may show slight defects in shape, development and colouring, provided these do not impair the essential characteristics of the variety, allowing for the district in which they are grown.

The berries must be sufficiently firm and sufficiently attached, and where possible, still have their bloom. They may be less evenly spaced along the stalk than in Class I.

The following defects are allowed provided the table grapes retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring
- slight sun scorch affecting the skin only
- slight bruising
- slight skin defects.

III. PROVISIONS CONCERNING SIZING

Size is determined by the weight of the bunch.

The following minimum size requirements per bunch are defined for table grapes grown under glass and for open-grown table grapes, large-berry or small-berry varieties respectively.

	Table grapes grown under glass	Open grown table grapes	
		Large-berry varieties	Small-berry varieties
"Extra" Class	300 g	200 g	150 g
Class I	250 g	150 g ¹	100 g
Class II	150 g	100 g	75 g

(Note: A classified list of varieties is annexed hereto)

¹ Table grapes of varieties *Barlinka*, *La Rochelle* and *Dauphine*, marked as late harvest table grapes (bunches from the secondary harvest) may conform to a minimum bunch weight of 100g, provided that the bunches show the characteristic twist of the stems.

For all classes: In each package for direct sale to the consumer not exceeding 1 kg net weight, one bunch below the required minimum weight is allowed to adjust the weight indicated, provided the bunch meets all other requirements for the specified class.

Where the name of the variety on the marking does not appear on the list in the Annex hereto, the minimum weight for large-berry varieties is required.

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 weight of bunches 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 weight of bunches 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 weight of bunches 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.

B. Size tolerances

(i) *"Extra" Class and Class I*

10 per cent by weight of bunches not satisfying the size requirements of the class, but meeting those of the class immediately below.

(ii) *Class II*

10 per cent by weight of bunches not satisfying the size requirements of the class but weighing not less than 75 g.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

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

In the case of the "Extra" Class, the bunches must be of more or less identical size and colouring.

In the case of grapes packed in small consumer packages of a net weight not exceeding one kilogramme, uniformity of variety and origin is not required.

The inclusion in each package of bunches of different colours for decorative purposes shall be allowed in the case of the variety Chasselas.

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

B. Packaging

The table grapes must be packed in such a way as to protect the produce properly.

In the case of the "Extra" Class, the bunches must be packed in a single layer.

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 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, although a fragment of vine shoot no more than 5 cm in length may be left on the stem of the bunch as a form of special presentation.

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

- "Table grapes", if the contents are not visible from the outside
- Name of the variety or, where applicable, names of varieties.
- "Underglass", where applicable.

C. Origin of produce

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

D. Commercial specifications

- Class.
- "late harvest grapes", where applicable.

E. Official control mark (optional)

Published 1961
Revised 1997, 1999, 2000, 2001
The UN/ECE Standard for Table Grapes
has led to an explanatory brochure published by the OECD Scheme

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.*

LIST OF VARIETIES NON EXHAUSTIVE⁴

The names given in brackets are synonyms that may equally be used on the package.

I. Table grapes grown under glass

Alphonse Lavallée (Garnacha roya - Ribier)
 Black Alicante (Granacke - Granaxa - Grandaxa)
 Cardinal
 Canon Hall (Cannon Hall Muscat)
 Colman (Gros Colman) (cf.2 - Gros Colman)
 Frankenthal (cf. 2a - Schiava Grossa)
 Golden Champion (cf. 2a - Baresana)
 Gradisca (Gradiska)
 Gros Maroc
 Léopold III
 Muscat d'Alexandrie (cf. 2a)
 Muscat d'Hambourg (cf. 2b Moscato d'Amburgo)
 Prof. Aberson
 Royal.

II. Open-grown table grapes**(a) Large berry varieties**

Aledo (New Cross-Real)
 Alphonse Lavallée (cf.1)
 Amasya Siyahi
 Angela (Angiola)
 Baresana (Duraca - Golden Champion - Lattuario bianco - Latuario bianco - Littuario bianco - Turchesa - Turchesca - Uva di Bisceglie - Uva rosa - Uva Turca - Varesana)
 Barlinka
 Bicane (Napoléon - Perle Impériale - Weisser Damaszaner - Zanta)
 Bien Donné
 Blanc d'Edessa (Edessis - Amasya)
 Bonheur
 Calmeria
 Cardinal
 Coarna noir
 Dabouki (Barbaroui - Khalili - Salti)
 Danam
 Dan Ben-Hannah (Black Emperor)
 Danlas
 Danuta
 Datal
 Dauphine
 Diagalves (Dependura - Formosa - Pendura - Villanueva)
 Dimiat (Damiat - Zoumiatico)
 Dominga (Gloria - Murciana blanca - Uva verde de Alhama)
 Doña María
 Emperor (Emperador - Genova - Red Emperador - Red Emperor)
 Erenköy Beyazi
 Erlihane
 Ferral
 Flame Tokay
 Genre (Pembe Genre)
 Golden Hill
 Gros Colman (Colman Früher Wälscher - Gros Colmar - Triomphle)
 Hönüsü

⁴ Some of the names included in this list of varieties may indicate registered and patented trademarks in some countries.

Ignea (I. Pirovano 185)
 Imperial Napoleon (Doña Mariana, Mariana)
 Isa
 Italia (Dona Sofia - Idéal - Italian muscat - I. Pirovano 65 - Moscatel Italiano).
 Kozak Beyazi
 La Rochelle
 Lival
 Matilde
 Michele Palieri
 Muscat d'Alexandrie (Moscatellone - Moscatel Romano - Muscat Gordo bianco - Muscat de
 Grano Gordo - Muscat d'Espagne - Muscat Romano - Muscat blanc
 d'Alexandrie - Muskaat van Alexandrië - Salamanna - Seramanna -
 White Hanepoot - Witte Muskaat - Zibibbo)
 Muscat Madame Mathiasz (Madame Jean Mathiaz)
 Muscat Supreme
 Ohanes (Almeria - Blanca Legitima - Ohanez - Uva de Almeiría - Uva di Almería - Uva
 de Embarque - Uva del Barco)
 Olivette blanche (Bridal - Olivette de Montpellier - Olivette de Vendemian)
 Olivette noire (Olivetta nera - Olivetta Vibonese - Cornichon - Preta - Purple Cornichon)
 Ora
 Pannonia (Pannonia Gold)
 Peck
 Perlona (I. Pirovano 54)
 Phraoula (Fraoula - Praoula Kokkini - Phraoula radini)
 Planta Nova (Coma - Tardana - Tortazon)
 Prima
 Prune de Cazouls
 Ragol (Ahmeur bou Ahmeur - Angelina - Argelina - Imperial roja - Uva de Ragol)
 Rasaki
 Red Globe
 Regina (Afouz Ali - Afis Ali - Afuz Ali - Aleppo - Bolgar - Dattier de Beyrouth - Dattero di
 Negroponte - Galleta - Hafis Ali - Inzolia imperiale - Karaboumou - Kararubun -
 Mennavacca bianca - Parchitana - Pergolona - Regina di Puglia - Reine - Rasaki -
 Rosaki blanc - Rosetti - Uva Real - Waltham Cross)
 Regina nera (Mennavacca nera - Lattuario nero - Olivettona - Regina negra - Rosaki noir)
 Ribol
 Ronelle (Black Gem)
 Salba
 Schiava grossa (Black Hambourg - Frankenthal - Gross Vernatsch -Imperator - Lamper
 Schiavone - Trollinger)
 Sonita
 Sugraone (Superior Seedless?)
 Sugrafive (Early Superior Seedless?)
 Sunred Seedless
 Tchaouch (Chaouch - Parc de Versailles - Tsaoussi)
 Verico
 Victoria
 ? *Registered Trademark*

(b) **Small-berry varieties**

Admirable de Courtiller (Admirable - Csiri Csuri)
 Albillo (Acerba - Albuella - Blanco Ribera - Cagalon)
 Angelo Pirovano (I. Pirovano 2)
 Annamaria (I. Ubizzoni 4)
 Baltali
 Beba (Beba de los Santos - Eva)
 Catalanesca (Catalanesa - Catalana - Uva Catalana)
 Chasselas blanc (Chasselas doré - Fendant - Franceset - Franceseta - Gutedel -
 Krachtgutedel - White van der Laan)

Chassalas rouge
 Chelva (Chelva de Cebreros - Guareña - Mantuo - Villanueva)
 Ciminnita (Cipro bianco)
 Clairette (Blanquette - Malvoisie - Uva de Jijona)
 Colombana bianca (Veredea - Colombana de Peccioli)
 Dehlo
 Delizia di Vaprio (I. Pirovano 46 A)
 Exalta
 Flame Seedless (Red Flame)
 Gros Vert (Abbondaza - St.Jeannet - Trionfo dell'Esposizione - Verdal - Trionfo di Gerusalemme)
 Jaoumet (Madeleine de St.Jacques - Saint Jacques)
 Madeleine (Angevine - Angevine Oberlin - Madeleine Angevine Oberlin - Republicain)
 Mireille
 Molinera (Besgano - Castiza - Molinera gorda)
 Moscato d'Adda (Muscat d'Adda)
 Moscato d'Amburgo (Black Muscat - Hambro - Hamburg - Hamburski Misket - Muscat d'Hambourg - Musato Preto)
 Moscato di Terracina (Moscato di Maccarese)
 Oeillade (Black Malvoisie - Cinsaut - Cinsault - Ottavianello - Sinso)
 Panse precoce (Bianco di Foster - Foster's white - Sicilien)
 Perla di Csaba (Cabski Biser - Julski muskat - Muscat Julius - Perle de Csaba)
 Perlaut
 Perlette
 Pizzutello bianco (Aetonychi aspro - Coretto - Cornichon blanc - Rish Baba - Sperone di gallo - Teta di vacca)
 Precoce de Malingre
 Primus (I. Pirovano 7)
 Prunesta (Bermestia nera - Pergola rossa - Pergolese di Tivoli)
 Regina dei Vigneti (Königin der Weingärten - Muskat Szölöskertek Kizalyneja - Szölöskertek Kizalyneh - Rasaki ourgarias - Regina Villos - Reina de las Viñas - Reine des Vignes - I. Mathiasz 140 - Queen of the Vineyards)
 Servant (Servan - Servant di Spagna)
 Sideritis (Sidiritis)
 Sultanines (Bidaneh - Kishmich - Kis Mis - Sultan - Sultana - Sultani - Cekirdesksiz - Sultanina bianca - Sultaniye - Thompson seedless and mutations)
 Valenci blanc (Valensi - Valency - Panse blanche)
 Valenci noir (Planta Mula - Rucial de Mula - Valenci negro)
 Yapincak.

ECONOMIC COMMISSION FOR EUROPE
COMMITTEE FOR TRADE, INDUSTRY AND ENTERPRISE DEVELOPMENT
Working Party on Standardization of Perishable Produce and Quality Development

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REPORT OF THE FIFTY-SIXTH SESSION

Addendum 14

Note by the secretariat

This document contains the revised UN/ECE Standard for Tomatoes (FFV-36), as adopted by the Working Party.

UN/ECE STANDARD FFV-36
concerning the marketing and commercial
quality control of
TOMATOES
moving in international trade between and to
UN/ECE member countries

I. DEFINITION OF PRODUCE

This standard applies to tomatoes of varieties (cultivars) grown from *Lycopersicum esculentum Mill.* to be supplied fresh to the consumer, tomatoes for industrial processing being excluded.

Tomatoes may be classified into four commercial types:

- "round"
- "ribbed"
- "oblong" or "elongated"
- "cherry" tomatoes (including "cocktail" tomatoes)

II. PROVISIONS CONCERNING QUALITY

The purpose of the standard is to define the quality requirements of tomatoes 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 tomatoes 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
- fresh in appearance
- practically free from pests
- practically free from damage caused by pests
- free of abnormal external moisture
- free of any foreign smell and/or taste.

In the case of trusses of tomatoes, the stalks must be fresh, healthy, clean and free from all leaves and any visible foreign matter.

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

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

B. Classification

Tomatoes are classified in three classes defined below:

(i) *Extra Class*

Tomatoes in this class must be of superior quality. They must have firm flesh and must be characteristic of the variety as regards shape, appearance and development.

Their colouring, according to their state of ripeness, must be such as to satisfy the requirements set out in the last sub-paragraph of paragraph A above.

They must be free from greenbacks and other 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 the package.

(ii) *Class I*

Tomatoes in this class must be of good quality. They must be reasonably firm and characteristic of the variety.

They must be free of cracks and visible greenback. 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:

- a slight defect in shape and development
- a slight defect in colouring
- slight skin defects
- very slight bruises.

Furthermore, "ribbed" tomatoes may show:

- healed cracks not more than 1 cm long
- no excessive protuberances
- small umbilicus, but no suberization
- suberization of the stigma up to 1 cm²
- fine blossom scar in elongated form (like a seam), but not longer than two-thirds of the greatest diameter of the fruit.

(iii) *Class II*

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

They must be reasonably firm (but may be slightly less firm than in Class I) and must not show unhealed cracks.

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

- defects in shape, development and colouring
- skin defects or bruises, provided the fruit is not seriously affected
- healed cracks not more than 3 cm in length for round, ribbed or oblong tomatoes.

Furthermore, "ribbed" tomatoes may show:

- more pronounced protuberances than allowed under Class I, but without being misshapen
- an umbilicus
- suberization of the stigma up to 2 cm²
- fine blossom scar in elongated form (like a seam).

III. PROVISIONS CONCERNING SIZING

Size is determined by the maximum diameter of the equatorial section. The following provisions shall not apply to "cherry" tomatoes.

A. Minimum size

For tomatoes classified in the "Extra" Class and Classes I and II, the minimum size is set at:

- 35 mm for "round" and "ribbed" tomatoes
- 30 mm for "oblong" tomatoes.

B. Sizing scale

The tomatoes are graded according to the following sizing scale:

30 mm and over but under	35 mm ¹
35 mm " " " "	40 mm
40 mm " " " "	47 mm
47 mm " " " "	57 mm
57 mm " " " "	67 mm
67 mm " " " "	82 mm
82 mm " " " "	102 mm
102 mm and over	

Observance of the sizing scale is compulsory for "Extra" Class and Class I tomatoes.

This sizing scale shall not apply to trusses of tomatoes.

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 tomatoes 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 tomatoes not satisfying the requirements of the class but meeting those of Class II or, exceptionally, coming within the tolerances of that class. In the case of trusses of tomatoes, 5% by number or weight of tomatoes detached from the stalk.

(iii) *Class II*

10 per cent by number or weight of tomatoes satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting, marked bruising or any other deterioration rendering it unfit for consumption. In the case of trusses of tomatoes, 10% by number or weight of tomatoes detached from the stalk.

B. Size tolerances

For all classes: 10 per cent by number or weight of tomatoes conforming to the size immediately above or below that specified, with a minimum of 33 mm for "round" and "ribbed" tomatoes, and 28 mm for "oblong" tomatoes.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

The contents of each package must be uniform and contain only tomatoes of the same origin, variety or commercial type, quality and size (if sized).

The ripeness and colouring of tomatoes in "Extra" Class and Class I must be practically uniform. In addition, the length of "oblong" tomatoes must be sufficiently uniform.

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

B. Packaging

The tomatoes 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 paper or stamps bearing trade specifications is allowed provided the printing or labelling has been done with non-toxic ink or glue.

¹ Only for "oblong" tomatoes.

Packages must be free of all foreign matter.

C. Presentation

The tomatoes may be presented as follows:

- (i) As individual tomatoes, with or without calyx and short stalk;
- (ii) As trusses of tomatoes, in other words, in entire inflorescences or parts of inflorescences, where each inflorescence or part of each inflorescence should comprise at least the following number of tomatoes:
 - 3 (2 if prepackaged) or
 - in the case of trusses of 'cherry' tomatoes, 6 (4 if prepackaged).

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

- "Tomatoes" or "trusses of tomatoes" and the commercial type if the contents are not visible from the outside. These details must always be provided for "cherry" (or "cocktail") tomatoes whether in trusses or not.
- 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 diameters (if sized), or the word "unsized" where appropriate.

E. Official control mark (optional)

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The UN/ECE Standard for Tomatoes
has led to an explanatory brochure published by the OECD Scheme

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.*