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Item 3 (a) of the provisional agenda
Revision of standards

Revised Standard for Citrus fruit *

At its 2017 session, the Specialized Section decided to initiate a full review of the standard, to consider proposals, comments and submissions from the 2016 and 2017 sessions (particularly the labelling parts) and to keep the integrity of the citrus fruit standard, possibly with species-specific annexes.

To simplify the revision process, the following document contains separate parts for each species, references to the respective Codex standard (in square brackets), the alignment with the 2017 Standard Layout as well as comments by delegations. Delegations are invited to send their proposals to the secretariat before the May 2017 session to allow for consultations prior to the session.

* Submitted on the above date to include comments from various delegations.

Grapefruit and pummelos

I. Definition of produce[1]

This standard applies to:

- grapefruit of varieties (cultivars) grown from the species *Citrus paradisi* Macfad.,
- pummelos or Shaddock of varieties (cultivars) grown from the species *Citrus maxima* (Burm.) Merr. and
- interspecific hybrids showing fruit characteristics of grapefruit or pummelos

to be supplied fresh to the consumer, citrus fruit for industrial processing being excluded:

II. Provisions concerning quality

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

However, if applied at stages following export, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity
- for products graded in classes other than the "Extra" Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

A. Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the grapefruit and pummelos 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
- free from damage caused by pests affecting the flesh
- free of bruising and/or extensive healed overcuts
  [healed overcuts missing in Codex STAN 219 and 214]
- firm [from Codex STAN 219 and 214]
- free of signs of shrivelling and dehydration
- free of damage caused by low and/or high temperatures or frost
  [addition from Codex STAN 219]

[1] All information on botanical names is taken from the GRIN database. See www.ars-grin.gov

- free of abnormal external moisture
- free of any foreign smell and/or taste.

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

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

B. Maturity requirements

The grapefruit and pummelos must be sufficiently developed and display satisfactory maturity and/or ripeness, ~~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.

Maturity of grapefruit and pummelos is defined by the following parameters[2] specified as follows:

	Minimum juice content (per cent)	*Minimum sugar content (°Brix)*	*Colouring*
Grapefruit and hybrids with grapefruit appearance	35	7 [Proposal by South Africa]	Must be typical of the variety. Fruit with a greenish colour (green in Oroblanco) is allowed, provided it satisfies the minimum requirements as to juice content
Oroblanco	35	9	
Pummelos (Shaddock) and hybrids with pummelo appearance	35 [Proposal by South Africa]	8	Must be typical of the variety on at least two thirds of the surface of the fruit

~~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.~~

Remark by the delegation of Germany: Whether the sentence proposed for deletion is necessary while the minima of colouring are defined should be discussed.

Remark by the delegation of South Africa: disagrees with the deletion of the abovementioned sentence, as sometimes when grapefruit are harvested mature but not yet fully coloured, they can be shipped slightly greener (instead of degreening) to still "reach the colour typical of the variety at their destination point"

Grapefruit and pummelos meeting the minimum maturity requirements may be "degreened". This treatment is only permitted if the other natural organoleptic characteristics are not modified.

Red-pulp varieties of grapefruit may have reddish patches on the skin. [addition from Codex STAN 219]

[2] The determination of juice content and sugar content is based on the OECD guidelines on objective tests. See *http://www.oecd.org/agriculture/fruit-vegetables/publications/oecd-guidelines-fruit-vegetables.htm*

C. Classification

Grapefruit and pummelos are classified in three classes, as defined below:

(i) "Extra" Class

Grapefruit and pummelos in this class must be of superior quality. They must be characteristic of 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 produce, the quality, the keeping quality and presentation in the package.

(ii) Class I

Grapefruit and pummelos in this class must be of good quality. They must be characteristic of the variety.

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
- slight defects in colouring, including slight sunburn
- slight progressive skin defects, provided they do not affect the flesh [missing in Codex STAN 219 and]
- slight skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- slight healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling
- slight skin discolouration due to rust mite, melanoses, and other blemishes not exceeding more than one-fifth of the surface of the fruit.[from Codex STAN 219]

The total area affected [by skin defects] must not exceed 10 per cent [of the total surface of the fruit.] [from Codex STAN 214]

The defects must not, in any case, affect the flesh. [part of Codex STAN 219 and 214]

(iii) Class II

This class includes grapefruit and pummelos that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.

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

- defects in shape
- defects in colouring, including sunburn
- progressive skin defects, provided they do not affect the flesh [missing in Codex STAN 219]
- skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling

- superficial healed skin alterations [missing in Codex STAN 219]
- slight skin discolouration due to rust mite, melanoses, and other blemishes not exceeding more than two-fifths of the surface of the fruit [from Codex STAN 219]
- healed skin defects not exceeding 15 % [of the total surface area of the fruit] [replacing the five before mentioned indents referring to skin defects; from Codex STAN 214]
- rough skin. [missing in Codex STAN 214]

The defects must not, in any case, affect the flesh. [from Codex STAN 219 and 214]

III. Provisions concerning sizing

Size is determined by the maximum diameter of the equatorial section of the fruit ~~by weight~~ [proposal by South Africa] or by count. [addition from Codex STAN 214]

Remark by South Africa: diameter and count are the standard methods used for sizing. There is no OECD guideline for fruit weight of citrus fruit.

The minimum sizes are set as:

- 70 mm for grapefruit and hybrids
- 100 mm ~~or 400 g~~ [proposal by South Africa] for pummelos and hybrids.[addition from Codex STAN 214]

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

(a) When sized by diameter

- 10 mm, if the diameter of the smallest fruit (as indicated on the package) is < 60 mm
- 15 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 60 mm but < 80 mm
- 20 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 80 mm but < 110 mm
- no limitation of difference in diameter for fruit ≥ 110 mm.

(b) When size codes are applied, the codes and ranges in the following tables must be respected:

	Code	*Diameter*	~~*Weight*~~
Grapefruit and hybrids	0	>139	-
	1	109 – 139	-
	2	100 – 119	-
	3	93 – 110	-
	4	88 – 102	-
	5	84 – 97	-
	6	81 – 93	-
	7	77 – 89	-
	8	73 – 85	-
	9	70 - 80	-
	Code	*Diameter*	~~*Weight*~~

	Code	*Diameter*	~~*Weight*~~
Pummelos and hybrids	0	>170	~~> 1900~~
	1	156 – 170	~~1701 – 1900~~
	2	148 – 162	~~1501 – 1700~~
	3	140 – 154	~~1301 – 1500~~
	4	132 – 146	~~1101 – 1300~~
	5	123 – 138	~~901 – 1100~~
	6	116 – 129	~~701 – 900~~
	7	100 – 118	~~400 – 700~~

Remark by South Africa: delete "Weight" column.

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

For fruit in bulk bins and fruit in sales packages of a maximum net weight of 5 kg, the maximum difference must not exceed the range obtained by grouping three consecutive sizes in the size scale.

(c) For fruit sized by count, the difference in size should be consistent with (a).

Remark by Germany: Uniformity in size is not required in mixtures of grapefruit and/or pummelos with distinctly different citrus fruit species.

IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

A. Quality tolerances

(i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of grapefruit and pummelos not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of grapefruit and pummelos not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of grapefruit and pummelos satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

B. Size tolerances

For all classes: a total tolerance of 10 per cent, by number or weight, of grapefruit and pummelos not corresponding to the requirements as regards sizing is allowed. ~~the size immediately below and/or above that (or those, in the case of the combination of three sizes) mentioned on the package is allowed.~~

~~In any case, the tolerance of 10 per cent applies only to fruit not smaller than 67 mm for grapefruit and hybrids and 98 mm for pummelos and hybrids.~~

Remark by Germany: This proposal is to align the size tolerances with the Standard Layout.

Remark by South Africa: proposes retaining this sentence as there is currently an allowance for minimum size.

V. Provisions concerning presentation

A. Uniformity

The contents of each package must be uniform and contain only grapefruit or pummelos of the same origin, variety or commercial type [proposal by South Africa], quality and size, and appreciably of the same degree of ripeness and development.

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

However, a mixture of grapefruit and/or pummelos with citrus fruit of distinctly different species may be packed together in a sales package, provided they are uniform in quality and, for each species concerned, in variety and origin. Uniformity in size is not required.

Remark by Germany: The paragraph on mixtures of species is not part of Codex STAN 219.

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

B. Packaging

The grapefruit and pummelos must be packed in such a way as to protect the produce properly.

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.

Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue, nor lead to skin defects. Information lasered on single fruit should not lead to flesh or skin defects.

If the fruit is wrapped, thin, dry, new and odourless[3] paper must be used.

The use of any substance tending to modify the natural characteristics of the citrus fruit, especially in taste or smell[4], is prohibited.

[3] 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.

Packages 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.

VI. Provisions concerning marking

Each package[4] must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

A. Identification

Packer and/or dispatcher/exporter/~~shipper~~:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority[5] if the country applying such a system is listed in the UNECE database.

B. Nature of produce[6]

- "Grapefruit", "Pummelos" / Shaddock" if the produce is not visible from the outside
- "Mixture of citrus fruit" or equivalent denomination and common names of the different species, in case of a mixture of grapefruit and/or pummelos with citrus fruit of distinctly different species
- Name of the variety (optional)

  The name of a variety may be replaced by a synonym. A trade name[7] can only be given in addition to the variety name [proposal by South Africa] or the synonym.
- flesh colour "white", "pink" or "red" where appropriate
- "seedless" (optional, seedless grapefruit and pummelos may occasionally contain seeds).

C. Origin of produce

- Country of origin[8] and, optionally, district where grown, or national, regional or local place name
- In the case of a mixture of grapefruit and/or pummelos with citrus fruit of distinctly different species of different origins, the indication of each country of origin shall appear next to the name of the species concerned.

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[4] These marking provisions do not apply to sales packages presented in packages. However, they do apply to sales packages (pre-packages) presented individually.

[5] 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, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.

[6] An informative, non-exhaustive list of varieties and their respective synonyms, trademarks and/or variety groups is available at the Specialized Section's meeting website.

[7] A trade name can be a trademark for which protection has been sought or obtained or any other commercial denomination.

[8] The full or a commonly used name should be indicated.

D. Commercial specifications

- Class
- Size expressed as:
    - Minimum and maximum ~~size~~ diameter (in mm) or
    - Size code(s) ~~followed~~, optionally followed [proposal by South Africa] by a minimum and maximum ~~size~~ diameter
    - Count
- Post-harvest treatment (optional, based on the national legislation of the importing country).

E. Official control mark (optional)

~~Adopted 20xx (previously adopted in 1963 as standard for citrus fruit)~~

Limes

I. Definition of produce[9]

This standard applies to of varieties (cultivars) grown from

- Persian limes grown from the species *Citrus latifolia* (Yu. Tanaka) Tanaka, a largefruited acid lime known also as Bearss or Tahiti, ~~and hybrids thereof~~
- Mexican limes grown from the species *Citrus aurantiifolia (*Christm.*)* Swingle, also known as sour limes and key limes, ~~and hybrids thereof~~
- Indian sweet limes, Palestine sweet limes grown from the species *Citrus limettioides* Tanaka ~~and hybrids thereof~~ and
- Interspecific hybrid showing fruit characteristics of the above mentioned limes

to be supplied fresh to the consumer, limes for industrial processing being excluded.

Remark by Germany: Codex STAN 213 does not include Mexican limes of Indian sweet limes.

Remark by South Africa: proposal to exclude Mexican lime and Indian sweet lime.

II. Provisions concerning quality

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

However, if applied at stages following export, products may show in relation to the requirements of the standard:

[9] All information on botanical names is taken from the GRIN database. See www.ars-grin.gov

- a slight lack of freshness and turgidity
- for products graded in classes other than the "Extra" Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

A. Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the limes 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
- free from damage caused by pests affecting the flesh
- free of bruising and/or extensive healed overcuts
  [healed overcuts missing in Codex STAN 213]
- free of signs of shrivelling and dehydration [missing in Codex STAN 213]
- free of damage caused by low temperature or frost [frost missing in Codex STAN 213]
- ~~pipless~~ seedless [proposal by South Africa] [provision in Codex STAN 213 for Persian limes]
- firm [provision in Codex STAN 213 for Persian limes]
- free of abnormal external moisture
- free of any foreign smell and/or taste.

The development and condition of the limes must be such as to enable it:

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

B. Maturity requirements

The limes must ~~have~~ be sufficiently developed and display satisfactory maturity and/or ripeness, ~~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.

Maturity of limes is defined by the following parameters specified as follows:

The minimum juice[10] content is set at

[10] The determination of juice content is based on the OECD guidelines on objective tests. See *http://www.oecd.org/agriculture/fruit-vegetables/publications/oecd-guidelines-fruit-vegetables.htm*

- 42 per cent for Persian limes and
- 40 per cent for Mexican and Indian sweet limes.

~~The degree of colouring shall be such that following normal development the limes reach the colour typical of the species at their destination point.~~ The fruit should be green but may show yellow patches up to 30% of its surface for Persian limes and up to 20% for Mexican and Indian sweet limes.

Remark by Germany: Whether the sentence proposed for deletion is necessary while the minima of colouring are defined should be discussed.

Remark by South Africa: This sentence applies to orange-coloured citrus species, therefore can be deleted for lime fruit.

C. Classification

Limes are classified in three classes, as defined below:

(i) "Extra" Class

Limes in this class must be of superior quality. They must be characteristic of the variety (species).

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

Limes in this class must be of good quality. It must be characteristic of the variety (species).

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
- slight defects in colouring, including slight sunburn
- slight progressive skin defects, provided they do not affect the flesh
- slight skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- slight healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling.

Remark by Germany: In Codex STAN 213 for Persian limes, the last three indents are replaced by “slight skin defects not exceeding 1 cm^2.

<u>The defects must not, in any case, affect the flesh.</u> [part of Codex STAN 213]

(iii) Class II

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

The following defects may be allowed, provided the limes retains its essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring, including sunburn
- progressive skin defects, provided they do not affect the flesh
- skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling
- superficial healed skin alterations.
- *Remark by Germany*: In Codex STAN 213 for Persian limes, the last four indents are replaced by "slight skin defects not exceeding 2 cm^2.]

~~• Rough skin.~~ *Remark by Germany*: not relevant for limes.]

The defects must not, in any case, affect the flesh. [part of Codex STAN 213]

III. Provisions concerning sizing

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

The minimum size is set at:

– 42 mm for Persian limes

– 25 mm for Mexican limes [proposal by South Africa] and Indian sweet limes.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

(a) When sized by diameter

- 10 mm, if the diameter of the smallest fruit (as indicated on the package) is < 60 mm
- 15 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 60 mm but < 80 mm
- ~~20 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 80 mm but < 110 mm~~ [proposal by South Africa]
- no limitation of difference in diameter for fruit ≥ 110 mm. [proposal by South Africa]

Remark by South Africa: this section is redundant for lime fruit.

(b) When size codes are applied, the codes and ranges in the following tables must be respected:

Persian limes	
Size code	*Diameter (mm)*
1	58 – 67
2	53 – 62
3	48 – 57
4	45 – 52
5	42 – 49

Mexican and Indian sweet limes	
Size code	*Diameter (mm)*
1	> 45
2	40.1 - 45
3	35.1 - 40
4	30.1 - 35
5	25 - 30

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

For fruit in bulk bins and fruit in sales packages of a maximum net weight of 5 kg, the maximum difference must not exceed the range obtained by grouping three consecutive sizes in the size scale.

Remark by Germany: Codex STAN 213 is more prescriptive – as previous UNECE standard.]

(c) For fruit sized by count, the difference in size should be consistent with (a).

Uniformity in size is not required in mixtures of limes with distinctly different citrus fruit species.

Remark by South Africa: What is meant or intended by this point?

IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

A. Quality tolerances

(i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of limes not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of limes not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of limes satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

B. Size tolerances

For all classes: a total tolerance of 10 per cent, by number or weight, of limes not meeting the requirements as regards to sizing. ~~corresponding to the size immediately below and/or~~

~~above that (or those, in the case of the combination of three sizes) mentioned on the package is allowed.~~

~~In any case, the tolerance of 10 per cent applies only to fruit not smaller than 40 mm for Persian limes.~~

Remark by Germany: This proposal is to align the size tolerances with the Standard Layout.

V. Provisions concerning presentation

A. Uniformity

The contents of each package must be uniform and contain only limes of the same origin, variety or commercial type, quality and size, and appreciably of the same degree of ripeness and development.

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

However, a mixture of limes with citrus fruit of distinctly different species may be packed together in a sales package, provided they are uniform in quality and, for each species concerned, in variety or commercial type and origin. Uniformity in size is not required.

Remark by Germany: The paragraph on mixtures of species is not part of Codex STAN 213.

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

B. Packaging

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

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.

Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue, nor lead to skin defects. Information lasered on single fruit should not lead to flesh or skin defects.

If the fruit is wrapped, thin, dry, new and odourless[11] paper must be used.

The use of any substance tending to modify the natural characteristics of the limes, especially in taste or smell[4], is prohibited.

Packages 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.

[11] 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.

VI. Provisions concerning marking

Each package[12] must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

A. Identification

Packer and/or dispatcher/exporter~~shipper~~:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority[13] if the country applying such a system is listed in the UNECE database.

B. Nature of produce[14]

- "Limes", "Persian limes", "Mexican limes", "Indian sweet limes" / "Palestine sweet limes" if the produce is not visible from the outside
- "Mixture of citrus fruit" or equivalent denomination and common names of the different species, in case of a mixture of limes with citrus fruit of distinctly different species
- Name of the variety (optional)

  The name of a variety may be replaced by a synonym. A trade name[15] can only be given in addition to the variety name [proposal by South Africa] or the synonym.
- "seedless": (optional, seedless citrus fruit may occasionally contain seeds).

C. Origin of produce

- Country of origin[16] and, optionally, district where grown, or national, regional or local place name
- In the case of a mixture of limes with citrus fruit of distinctly different species of different origins, the indication of each country of origin shall appear next to the name of the species concerned.

D. Commercial specifications

- Class

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[12] These marking provisions do not apply to sales packages presented in packages. However, they do apply to sales packages (pre-packages) presented individually.

[13] 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, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.

14 An informative, non-exhaustive list of varieties and their respective synonyms, trademarks and/or variety groups is available at the Specialized Section's meeting website.

[15] A trade name can be a trademark for which protection has been sought or obtained or any other commercial denomination.

[16] The full or a commonly used name should be indicated.

- Size expressed as:
  - Minimum and maximum size (in mm) or
  - Size code(s), optionally followed, [proposal by South Africa] by a minimum and maximum size or Count
- Post-harvest treatment (optional, based on the national legislation of the importing country).

E. Official control mark (optional)

~~Adopted 20xx (previously adopted in 1963 as standard for citrus fruit)~~

Lemons

I. Definition of produce[17]

This standard applies to lemons of varieties (cultivars) grown from *Citrus limon* (L.) Burm. f. and interspecific hybrids showing fruit characteristics of lemons to be supplied fresh to the consumer, lemons for industrial processing being excluded.

II. Provisions concerning quality

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

However, if applied at stages following export, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity
- for products graded in classes other than the "Extra" Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

A. Minimum requirements

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

- intact
- free of bruising and/or extensive healed overcuts
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded

[17] All information on botanical names is taken from the GRIN database. See www.ars-grin.gov

- clean, practically free of any visible foreign matter
- practically free from pests
- free from damage caused by pests affecting the flesh
- free of signs of shrivelling and dehydration
- free of damage caused by low temperature or frost
- free of abnormal external moisture
- free of any foreign smell and/or taste.

The development and condition of the lemons must be such as to enable it:

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

B. Maturity requirements

The lemons must be sufficiently developed and display satisfactory maturity and/or ripeness, ~~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.

Maturity of lemons is defined as follows:

The minimum juice content[18] is set as 20 per cent.

Remark by South Africa: 20 per cent minimum juice content is exceptionally low; proposed to increase to 36 per cent.]

The colouring must be typical of the variety. However, the degree of colouring shall be such that following normal development the lemons reach the colour typical of the variety at their destination point. Fruit with a green (but not dark green) colour is allowed, provided it satisfies the minimum requirements as to juice content

Lemons meeting these maturity requirements may be “degreened”. This treatment is only permitted if the other natural organoleptic characteristics are not modified.

C. Classification

Lemons are classified in three classes, as defined below:

(i) "Extra" Class

Lemons in this class must be of superior quality. It must be characteristic of 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 produce, the quality, the keeping quality and presentation in the package.

(ii) Class I

Lemons in this class must be of good quality. It must be characteristic of the variety.

[18] The determination of juice content is based on the OECD guidelines on objective tests. See *http://www.oecd.org/agriculture/fruit-vegetables/publications/oecd-guidelines-fruit-vegetables.htm*

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
- slight defects in colouring, including slight sunburn
- slight progressive skin defects, provided they do not affect the flesh
- slight skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- slight healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling.

(iii) Class II

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

The following defects may be allowed, provided the lemons retains its essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring, including sunburn
- progressive skin defects, provided they do not affect the flesh
- skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling
- superficial healed skin alterations
- rough skin.

III. Provisions concerning sizing

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

The minimum size is set at 45 mm.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

(a) When sized by diameter

- 10 mm, if the diameter of the smallest fruit (as indicated on the package) is < 60 mm
- 15 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 60 mm but < 80 mm
- 20 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 80 mm ~~but < 110 mm~~ [proposal by South Africa]
- ~~there is no limitation of difference in diameter for fruit ≥ 110 mm.~~ [proposal by South Africa]

Remark by South Africa: delete, as these provisions are redundant for lemons.

(b) When size codes are applied, the codes and ranges in the following tables must be respected:

Size code	*Diameter (mm)*
0	79 - 90
1	72 - 83
2	68 - 78
3	63 - 72
4	58 - 67
5	53 - 62
6	48 - 57
7	45 - 52

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

For fruit in bulk bins and fruit in sales packages of a maximum net weight of 5 kg, the maximum difference must not exceed the range obtained by grouping three consecutive sizes in the size scale.

(c) For fruit sized by count, the difference in size should be consistent with (a).

Uniformity in size is not required in mixtures of lemons with distinctly different citrus fruit species.

IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

A. Quality tolerances

(i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of lemons not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of lemons not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of lemons satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

B. Size tolerances

For all classes: a total tolerance of 10 per cent, by number or weight, of lemons not satisfying the requirements as regards sizing, but not smaller than 43 mm [proposal by South Africa]. ~~corresponding to the size immediately below and/or above that (or those, in the case of the combination of three sizes) mentioned on the package is allowed.~~

~~In any case, the tolerance of 10 per cent applies only to fruit not smaller than 43 mm.~~

Remark by Germany: This proposal is to align the size tolerances with the Standard Layout.

V. Provisions concerning presentation

A. Uniformity

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

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

However, a mixture of lemons with citrus fruit of distinctly different species may be packed together in a sales package, provided they are uniform in quality and, for each species concerned, in variety or commercial type and origin. However, in case of those mixtures uniformity in size is not required.

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

B. Packaging

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

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.

Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue, nor lead to skin defects. Information lasered on single fruit should not lead to flesh or skin defects.

If the fruit is wrapped, thin, dry, new and odourless[19] paper must be used.

The use of any substance tending to modify the natural characteristics of the lemons, especially in taste or smell[4], is prohibited.

Packages 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.

[19] 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.

VI. Provisions concerning marking

Each package[20] must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

A. Identification

Packer and/or dispatcher/exporter~~shipper~~:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority[21] if the country applying such a system is listed in the UNECE database.

B. Nature of produce[22]

- "Lemons" if the produce is not visible from the outside
- "Mixture of citrus fruit" or equivalent denomination and common names of the different species, in case of a mixture of lemons of distinctly different species
- Name of the variety (optional);

  The name of a variety can be replaced by a synonym. A trade name[23] can only be given in addition to the variety or the synonym.
- "seedless" (optional, seedless lemons may occasionally contain seeds).

C. Origin of produce

- Country of origin[24] and, optionally, district where grown, or national, regional or local place name
- In the case of a mixture of lemons with citrus fruit [proposal by South Africa] of distinctly different species of different origins, the indication of each country of origin shall appear next to the name of the species concerned.

D. Commercial specifications

- Class
- Size expressed as:

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[20] These marking provisions do not apply to sales packages presented in packages. However, they do apply to sales packages (pre-packages) presented individually.

[21] 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, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.

[22] An informative, non-exhaustive list of varieties and their respective synonyms, trademarks and/or variety groups is available at the Specialized Section's meeting website.

[23] A trade name can be a trademark for which protection has been sought or obtained or any other commercial denomination.

[24] The full or a commonly used name should be indicated.

- Minimum and maximum size (in mm) or
- Size code(s) optionally followed by a minimum and maximum size or
- Count

- Post-harvest treatment (optional, based on the national legislation of the importing country).

E. Official control mark (optional)

~~Adopted 20xx (previously adopted in 1963 as standard for citrus fruit)~~

Mandarins (easy peelers)

I. Definition of produce[25]

This standard applies to mandarins (easy peelers) of varieties (cultivars) grown from (*Citrus reticulata* Blanco), including satsumas *(Citrus unshiu* Marcow.), clementines (*Citrus clementina* hort. ex Tanaka), common mandarins (*Citrus deliciosa* Ten.) and tangerines (*Citrus tangerina* Tanaka) and interspecific hybrids showing fruit characteristics of the mandarins (easy peelers) to be supplied fresh to the consumer, mandarins (easy peelers) for industrial processing being excluded.

II. Provisions concerning quality

The purpose of the standard is to define the quality requirements for mandarins (easy peelers) ~~at the export control stage~~ after preparation and packaging.

However, if applied at stages following export, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity
- for products graded in classes other than the "Extra" Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

A. Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the mandarins (easy peelers) must be:

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

[25] All information on botanical names is taken from the GRIN database. See www.ars-grin.gov

- clean, practically free of any visible foreign matter
- practically free from pests
- free from damage caused by pests affecting the flesh
- free of bruising and/or extensive healed overcuts
- free of signs of shrivelling and dehydration
- free of damage caused by low temperature or frost
- free of abnormal external moisture
- free of any foreign smell and/or taste.

The development and condition of the mandarins (easy peelers) must be such as to enable it:

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

B. Maturity requirements

The mandarins (easy peelers) must be sufficiently developed and display satisfactory maturity and/or ripeness, ~~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.

Maturity of mandarins (easy peelers) is defined by the following parameters specified for each species below[26]:

	Minimum juice content (per cent)	*Minimum sugar/acid ratio*	*Minimum Brix*	*Colouring*
Satsumas	33	6.5:1	8.5 **[**Remark by South Africa: add a table column to indicate minimum Brix for all mandarin varieties]	~~The colouring must be typical of the variety on at least one third of the surface of the fruit.~~
Clementines	40	7.0:1		
Other mandarin varieties and their hybrids	33	7.5:1		

The colouring must be typical of the variety on at least one third of the surface of the fruit. **[**Proposal by South Africa to move sentence about colouring below table.]

~~However, the degree of colouring shall be such that following normal development the mandarins (easy peelers) reach the colour typical of the variety at their destination point.~~

Remark by Germany: Whether the sentence proposed for deletion is necessary while the minima of colouring are defined should be discussed.

Remark by South Africa: South Africa supports the inclusion of this paragraph since sometimes when Satsumas are harvested mature but not yet fully coloured, they can then be shipped slightly greener (instead of degreening) to still "reach the colour typical of the variety at their destination point.

[26] The determination of juice content and sugar/acid ratio is based on the OECD guideline on objective tests. See *http://www.oecd.org/agriculture/fruit-vegetables/publications/oecd-guidelines-fruit-vegetables.htm*

Mandarins (easy peelers) meeting these maturity requirements may be “degreened”. This treatment is only permitted if the other natural organoleptic characteristics are not modified.

C. Classification

Mandarins (easy peelers) are classified in three classes, as defined below:

(i) "Extra" Class

Mandarins (easy peelers) in this class must be of superior quality. It must be characteristic of the variety and/or the species.

It 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

Mandarins (easy peelers) in this class must be of good quality. It must be characteristic of the variety and/or the species.

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
- slight defects in colouring, including slight sunburn
- slight progressive skin defects, provided they do not affect the flesh
- slight skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- slight healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling
- slight and partial detachment of the peel (or rind) for all fruit.

(iii) Class II

This class includes mandarins (easy peelers) that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.

The following defects may be allowed, provided the mandarins (easy peelers) retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring, including sunburn
- progressive skin defects, provided they do not affect the flesh
- skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling
- superficial healed skin alterations
- rough skin

- a partial detachment of the peel (or rind).

III. Provisions concerning sizing

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

A. Minimum size

The minimum size is set at

- 35 mm for clementines
- 45 mm for satsumas, other mandarin varieties and hybrids

B. Uniformity

Mandarins (easy peelers) may be sized by one of the following options:

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

(a) When sized by diameter

- 10 mm, if the diameter of the smallest fruit (as indicated on the package) is < 60 mm
- 15 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 60 mm but < 80 mm
- ~~20 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 80 mm but < 110 mm~~m [proposal by South Africa]
- no limitation of difference in diameter for fruit ≥ 110 mm. [proposal by South Africa]

(b) When size codes are applied, the codes and ranges in the following tables must be respected:

Size code	*Diameter (mm)*
1 - XXX	78 and above
1 - XX	67 - 78
1 or 1 - X	63 - 74
2	58 - 69
3	54 - 64
4	50 - 60
5	46 - 56
6[27]	43 - 52
7	41 - 48
8	39 - 46
~~9~~	~~37 - 44~~
~~10~~	~~35 - 42~~

[Proposal by South Africa: delete Size codes 9 and 10.]

[27] Sizes below 45 mm refer to clementines only.

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

For fruit in bulk bins and fruit in sales packages of a maximum net weight of 5 kg, the maximum difference must not exceed the range obtained by grouping three consecutive sizes in the size scale.

(b) For fruit sized by count, the difference in size should be consistent with (a).

Uniformity in size is not required in mixtures of distinctly different varieties of easy peelers with distinctly different citrus fruit species.

IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

A. Quality tolerances

(i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of mandarins (easy peelers) not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of mandarins (easy peelers) not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of mandarins (easy peelers) satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

B. Size tolerances

For all classes: a total tolerance of 10 per cent, by number or weight, of mandarins (easy peelers) not satisfying the requirements as regards sizing, but not smaller than 43 mm. [Proposal by South Africa] ~~corresponding to the size immediately below and/or above that (or those, in the case of the combination of three sizes) mentioned on the package is allowed.~~

~~In any case, the tolerance of 10 per cent applies only to fruit not smaller than 34 mm for clementines or 43 mm for satsumas, other mandarin varieties and hybrids.~~

Remark by Germany: This proposal is to align the size tolerances with the Standard Layout.

V. Provisions concerning presentation

A. Uniformity

The contents of each package must be uniform and contain only mandarins (easy peelers) of the same origin, variety or species, quality and size, and appreciably of the same degree of ripeness and development.

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

However, a mixture of distinctly different varieties of mandarins (easy peelers) with distinctly different species of citrus fruit may be packed together in a sales package, provided they are uniform in quality and, for each species concerned, in variety or species and origin. However, in case of those mixtures uniformity in size is not required.

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

B. Packaging

The mandarins (easy peelers) must be packed in such a way as to protect the produce properly.

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.

Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue, nor lead to skin defects. Information lasered on single fruit should not lead to flesh or skin defects.

If the fruit is wrapped, thin, dry, new and odourless[28] paper must be used.

The use of any substance tending to modify the natural characteristics of the mandarins (easy peelers), especially in taste or smell[4], is prohibited.

Packages 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.

VI. Provisions concerning marking

Each package[29] must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

A. Identification

Packer and/or dispatcher/exporter~~shipper~~:

[28] 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.

[29] These marking provisions do not apply to sales packages presented in packages. However, they do apply to sales packages (pre-packages) presented individually.

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority[30] if the country applying such a system is listed in the UNECE database.

B. Nature of produce[31]

- "Mandarins (easy peelers)" if the produce is not visible from the outside
- "Mixture of citrus fruit" or equivalent denomination and common names of the different species, in case of a mixture of mandarins (easy peelers) with distinctly different species of citrus fruit
- "Satsumas" or "Clementines" where appropriate and the name of the variety is optional;
- Name of the variety for other mandarins and mandarin hybrids

  The name of a variety can be replaced by a synonym. A trade name[32] can only be given in addition to the variety or the synonym.
- "seeded" or "with seeds" [proposal by South Africa**]** in case of clementines with more than 10 seeds
- "seedless": (optional, seedless mandarins (easy peelers) may occasionally contain seeds).

C. Origin of produce

- Country of origin[33] and, optionally, district where grown, or national, regional or local place name
- In the case of a mixture of mandarins (easy peelers) of distinctly different species of different origins, the indication of each country of origin shall appear next to the name of the species concerned.

D. Commercial specifications

- Class
- Size expressed as:
  - Minimum and maximum size (in mm) or
  - Size code(s) optionally followed by a minimum and maximum size or
  - Count

[30] 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, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.

[31] An informative, non-exhaustive list of varieties and their respective synonyms, trademarks and/or variety groups is available at the Specialized Section's meeting website.

[32] A trade name can be a trademark for which protection has been sought or obtained or any other commercial denomination.

[33] The full or a commonly used name should be indicated.

- Post-harvest treatment (optional, based on the national legislation of the importing country).

E. Official control mark (optional)

~~Adopted 20xx (previously adopted in 1963 as standard for citrus fruit)~~

Oranges

I. Definition of produce[34]

This standard applies to oranges of varieties (cultivars) grown from *Citrus sinensis* (L.) Osbeck and interspecific hybrids showing external characteristics of oranges to be supplied fresh to the consumer, oranges for industrial processing being excluded.

II. Provisions concerning quality

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

However, if applied at stages following export, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity
- for products graded in classes other than the "Extra" Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

A. Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the oranges 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
- free from damage caused by pests affecting the flesh
- free of bruising and/or extensive healed overcuts

[34] All information on botanical names is taken from the GRIN database. See www.ars-grin.gov

- free of signs of shrivelling and dehydration
- free of damage caused by low temperature or frost
- free of abnormal external moisture
- free of any foreign smell and/or taste.

The development and condition of the oranges must be such as to enable it:

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

B. Maturity requirements

The oranges must be sufficiently developed and display satisfactory maturity and/or ripeness, ~~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.

Maturity of oranges is defined by the following parameters[35]:

	Minimum juice content (per cent)	*Minimum sugar/acid ratio*	*Minimum Brix*
Blood oranges	30	6.5:1	[8.5] *Remark by South Africa*: add a table column to indicate minimum Brix for all orange varieties
Navels group	33	6.5:1	
Other varieties	35	6.5:1	
Mosambi, Sathgudi and Pacitan with more than one fifth green colour	33		
Other varieties with more than one fifth green colour	45		

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

However, fruit with light green colour not exceeding one fifth of the total surface area of the fruit is allowed, provided it satisfies the minimum requirements as to juice content and sugar-acid-ratio.

Oranges produced in areas with high temperatures and high relative humidity conditions during the developing period having a green colour exceeding one fifth of the surface area of the fruit are allowed, provided they satisfy the minimum requirements as to juice content (45%) [proposal by South Africa] and sugar-acid-ratio.

Oranges meeting these maturity requirements may be “degreened”. This treatment is only permitted if the other natural organoleptic characteristics are not modified.

C. Classification

Oranges are classified in three classes, as defined below:

[35] The determination of juice content and sugar/acid ratio is based on the OECD guidelines on objective tests. See *http://www.oecd.org/agriculture/fruit-vegetables/publications/oecd-guidelines-fruit-vegetables.htm*

(i) "Extra" Class

Oranges in this class must be of superior quality. It must be characteristic of the variety.

It 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

Oranges in this class must be of good quality. It must be characteristic of the variety.

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
- slight defects in colouring, including slight sunburn
- slight progressive skin defects, provided they do not affect the flesh [missing in Codex STAN 245]
- slight skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- slight healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling.

The defects must not, in any case, affect the flesh. [part of Codex STAN 245]

(iii) Class II

This class includes oranges that do not qualify for inclusion in the higher classes but satisfies the minimum requirements specified above.

The following defects may be allowed, provided the oranges retains its essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring, including sunburn
- progressive skin defects, provided they do not affect the flesh [missing in Codex STAN 245]
- skin defects occurring during the formation of the fruit, such as silver scurfs, russets or pest damage
- healed defects due to a mechanical cause such as hail damage, rubbing or damage from handling
- superficial healed skin alterations
- rough skin
- a slight and partial detachment of the peel (or rind).

The defects must not, in any case, affect the flesh. [part of Codex STAN 245]

III. Provisions concerning sizing

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

The minimum size is set as 53 mm by diameter.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

(a) When sized by diameter

- 10 mm, if the diameter of the smallest fruit (as indicated on the package) is < 60 mm
- 15 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 60 mm but < 80 mm
- 20 mm, if the diameter of the smallest fruit (as indicated on the package) is ≥ 80 mm but < 110 mm
- ~~no limitation of difference in diameter for fruit ≥ 110 mm~~. [proposal by South Africa]

(b) When size codes are applied, the codes and ranges in the following tables must be respected:

Size code	*Diameter (mm)*
0	92 – 110
1	87 – 100
2	84 – 96
3	81 – 92
4	77 – 88
5	73 – 84
6	70 – 80
7	67 – 76
8	64 – 73
9	62 – 70
10	60 – 68
11	58 – 66
12	56 – 63
13	53 – 60

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

For fruit in bulk bins and fruit in sales packages of a maximum net weight of 5 kg, the maximum difference must not exceed the range obtained by grouping three consecutive sizes in the size scale.

Remark by Germany: Codex STAN 245 is more prescriptive – as previous UNECE standard.

(c) For fruit sized by count, the difference in size should be consistent with (a).

<u>Uniformity in size is not required in mixtures of oranges with distinctly different citrus fruit species.</u>

IV. Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

A. Quality tolerances

(i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of oranges not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of oranges not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of oranges satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

B. Size tolerances

For all classes: a total tolerance of 10 per cent, by number or weight, not satisfying the requirements as regards sizing, but not smaller than 50 mm. [proposal by South Africa**]** ~~of oranges corresponding to the size immediately below and/or above that (or those, in the case of the combination of three sizes) mentioned on the package is allowed.~~

~~In any case, the tolerance of 10 per cent applies only to fruit not smaller than 50 mm.~~

Remark by Germany: This proposal is to align the size tolerances with the Standard Layout.

V. Provisions concerning presentation

A. Uniformity

The contents of each package must be uniform and contain only oranges of the same origin, variety or commercial types [proposal by South Africa**]**, quality and size, and appreciably of the same degree of ripeness and development.

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

However, a mixture of oranges with citrus fruit of distinctly different species may be packed together in a sales package, provided they are uniform in quality and, for each species concerned, in variety or commercial type and origin. However, in case of those mixtures uniformity in size is not required.

Remark by Germany: The paragraph on mixtures of species is not part of Codex STAN 245. However, the Codex standard is very prescriptive for types of presentation.

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

B. Packaging

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

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.

Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue, nor lead to skin defects. Information lasered on single fruit should not lead to flesh or skin defects.

If the fruit is wrapped, thin, dry, new and odourless[36] paper must be used.

The use of any substance tending to modify the natural characteristics of the oranges, especially in taste or smell[4], is prohibited.

Packages 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.

VI. Provisions concerning marking

Each package[37] must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

A. Identification

Packer and/or dispatcher/exporter~~shipper~~:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority[38] if the country applying such a system is listed in the UNECE database.

B. Nature of produce[39]

- "Oranges" if the produce is not visible from the outside
- "Mixture of citrus fruit" or equivalent denomination and common names of the different species, in case of a mixture of oranges with citrus fruit of distinctly different species

[36] 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.

[37] These marking provisions do not apply to sales packages presented in packages. However, they do apply to sales packages (pre-packages) presented individually.

[38] 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, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.

[39] An informative, non-exhaustive list of varieties and their respective synonyms, trademarks and/or variety groups is available at the Specialized Section's meeting website.

- Name of the variety which may be replaced by the respective variety group in the case of "Blood Oranges", [proposal by South Africa**]** "Navels" and "Valencias"

  The name of a variety may be replaced by a synonym. A trade name[40] may only be given in addition to the variety name [proposal by South Africa**]** or the synonym.

C. Origin of produce

- Country of origin[41] and, optionally, district where grown, or national, regional or local place name
- In the case of a mixture of oranges with citrus fruit of distinctly different species of different origins, the indication of each country of origin shall appear next to the name of the species concerned.

D. Commercial specifications

- Class
- Size expressed as:
  - Minimum and maximum size (in mm) or
  - Size code(s), optionally followed by a minimum and maximum size or
  - Count
- Post-harvest treatment (optional, based on the national legislation of the importing country).

E. Official control mark (optional)

Adopted 20xx (previously adopted in 1963 as standard for citrus fruit)

[40] A trade name can be a trademark for which protection has been sought or obtained or any other commercial denomination.

[41] The full or a commonly used name should be indicated.