

UNECE Standard on the marketing
and commercial quality control of



Sweet Peppers

Explanatory Brochure



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UNITED NATIONS

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Note

Commercial quality standards for agricultural produce are developed and approved by the United Nations Economic Commission for Europe through its Working Party on Agricultural Quality Standards. These international standards facilitate trade, encourage high-quality production, improve profitability and protect consumer interests. They are used by governments, producers, traders, importers and exporters, as well as international organizations. They cover a wide range of agricultural products, including fresh fruit and vegetables, dry and dried produce, seed potatoes, meat, cut flowers, eggs and egg products.

The Explanatory Brochure on the Standard for Sweet Peppers has been developed to harmonize the interpretation of the Standard, thereby facilitating international as well as national trade. It addresses producers and traders, as well as inspection authorities. It corresponds to the latest edition of the UNECE Standard for Sweet Peppers (FFV-28), which was officially adopted in November 2009. In November 2016, 2017 (alignment with the revised Standard Layout) and 2018, the Standard was revised. The 2018 version of the Brochure reflects all these. Subsequent revisions to the Standard will be placed on the website at: www.unece.org/trade/agr/standard/fresh/FFV-Standards.htm

All members of the United Nations can participate on an equal footing in the activities of the Working Party on Agricultural Quality Standards.

For more information, please visit our website <www.unece.org/trade/agr>.

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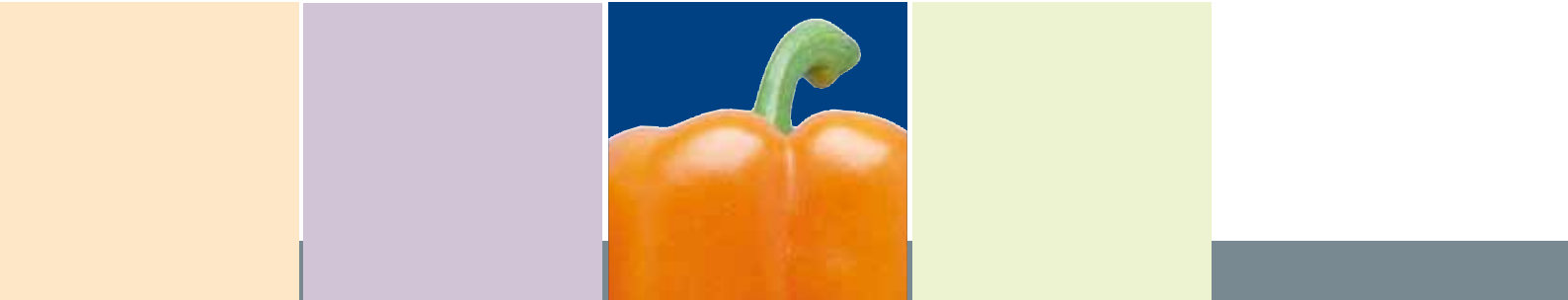
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The official text of the standard is indicated in blue bold type; the interpretative text of the standard is indicated in black. References to photos representing the visual interpretation are printed in black bold. The entire text of the standard without the interpretative text appears in the annex.



Definition of Produce

I. Definition of Produce

This standard applies to sweet peppers of varieties¹ (cultivars) grown from *Capsicum annuum* L. to be supplied fresh to the consumer, sweet peppers for industrial processing being excluded.

Interpretation: Sweet peppers come in a range of colours, sizes and shapes such as the following types: elongated, square, flat.

Examples of this range are shown in **Photos 1-7**.

The following peppers are excluded from this standard:

- hot or chilli peppers; however, some of the sweet pepper varieties may have a hot taste
- those for industrial processing.

¹ Some of the sweet pepper varieties may have a slightly hot taste. Examples of commercial varieties of sweet peppers having a slightly hot taste are Sivri and Padrón.

Interpretation: Examples of occasional hot tasting commercial types and varieties are Sivri and Padrón.



Photo 1
Definition of produce —
elongated sweet
peppers

Photo 2

Definition of produce —
elongated sweet
pepper



Photo 3

Definition of produce —
elongated sweet
peppers



Photo 4
Definition of produce —
square sweet peppers



Photo 5
Definition of produce —
square sweet peppers



Photo 6
Definition of produce –
square sweet peppers



Photo 7
Definition of produce –
flat sweet peppers
(tomato peppers)



Provisions concerning Quality

II. Provisions concerning Quality

The purpose of the standard is to define the quality requirements for sweet peppers 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 shall be responsible for observing such conformity.

Advice: At the packing stage, special attention should be paid to ensuring that the minimum requirements have been met. Produce with any progressive defects will deteriorate during transportation and distribution.

A. Minimum requirements

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

- intact

Interpretation: The sweet peppers must not have any damage or injury. The skin of the produce must be intact. Sweet peppers with unhealed injuries or that have holes that expose the interior of the produce are not allowed. The calyx must be intact. The calyx may be slightly damaged according to the provisions of Classes I and II. For products graded in classes other than “Extra” Class, produce with splits or fresh cuts, caused by bad packing or handling, is only allowed within the tolerances of classes I and II.

Examples relating to the minimum requirement “intact” are shown in **Photos 8-12**.



Photo 8

Minimum requirement: “intact”. Missing calyx — not allowed



Photo 9

Minimum requirement:
“intact”. Holes in the
produce exposing the
interior — not allowed

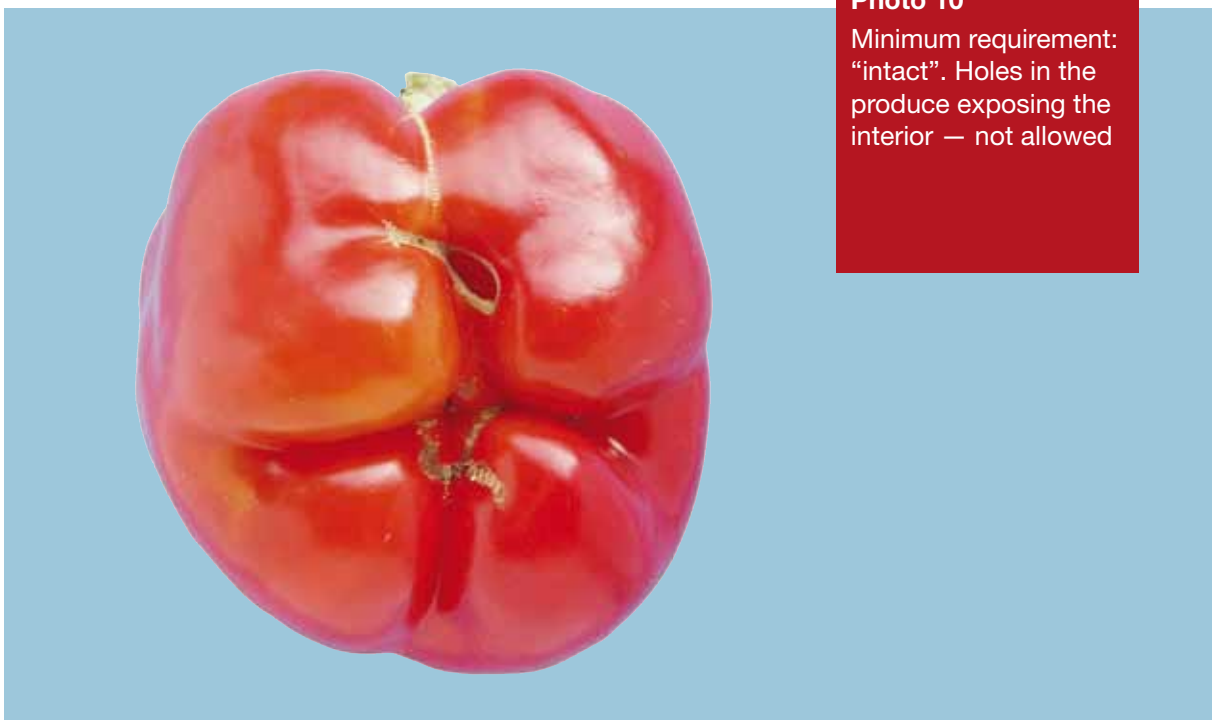


Photo 10

Minimum requirement:
“intact”. Holes in the
produce exposing the
interior — not allowed



Photo 11

Minimum requirement:
“intact”. Open cracking
— not allowed



Photo 12

Minimum requirement:
“intact”. Serious
sunburn — not allowed

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

Interpretation: The sweet peppers must be free of any disease or serious deterioration which appreciably affects their appearance, edibility or keeping quality.

Sweet peppers showing the following defects are therefore excluded:

- rotting, even if the signs are very slight or the rot affects the calyx and/or peduncle
- mould
- serious pitting
- serious bruising
- serious blossom end deterioration.

In addition, the sweet peppers must be free of physiological defects such as defects due to pitting or to calcium deficiency (called blossom end deterioration). Blossom end deterioration, bruising and pitting are allowed within the limits of Class II.

Advice: It is recommended that at the packing stage grading be restrictive for progressive defects such as rotting, mould and pitting.

Examples relating to the minimum requirement “sound” are shown in **Photos 13-18**.



Photo 13
Minimum requirement:
“sound”. Very slight rot
— not allowed



Photo 14

Minimum requirement:
“sound”. Slight rot —
not allowed

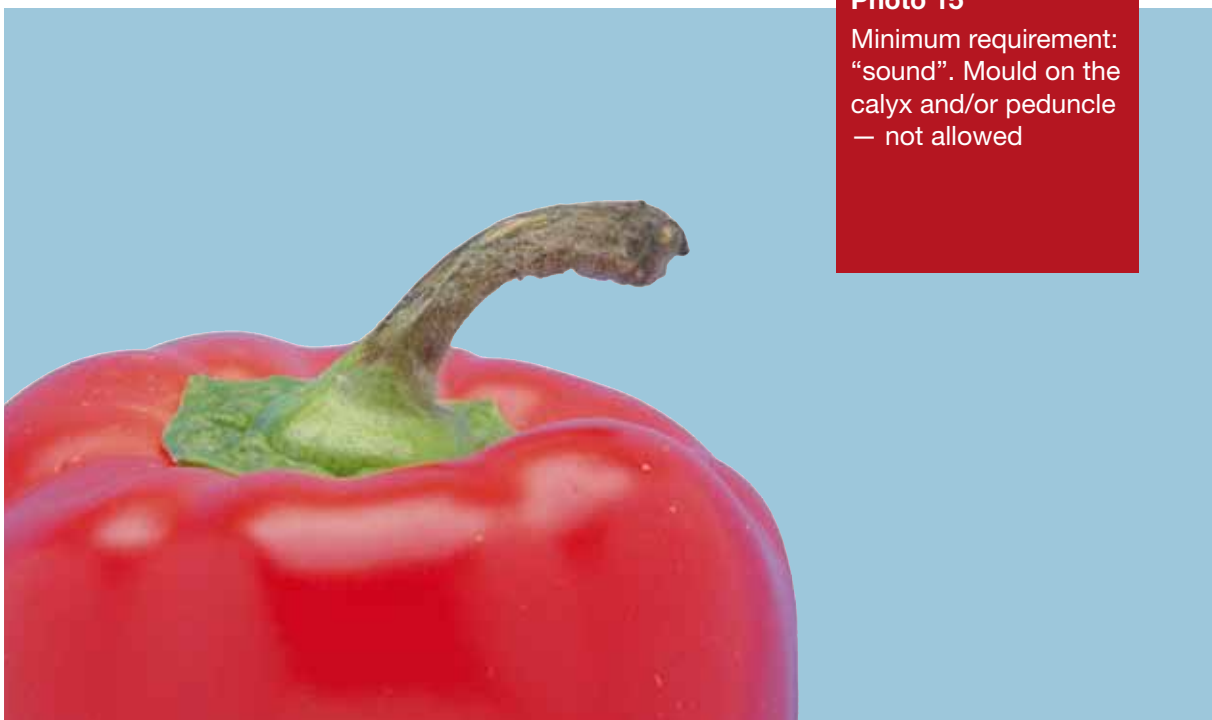


Photo 15

Minimum requirement:
“sound”. Mould on the
calyx and/or peduncle
— not allowed



Photo 16

Minimum requirement:
“sound”. Serious pitting
— not allowed



Photo 17

Minimum requirement:
“sound”. Serious
bruising — not allowed



Photo 18

Minimum requirement: “sound”. Serious blossom end deterioration — not allowed

- clean, practically free of any visible foreign matter

Interpretation: The sweet peppers must be practically free of visible soil, dust, chemical residue or other foreign matter. Extensive soiling or any traces of inorganic deposits are not allowed. Any deposits of a blue, green or other unusual colour indicating the presence of traces of pesticide residues are not allowed.

Examples relating to the minimum requirement “clean” are shown in **Photos 19-23**.



Photo 19

Minimum requirement: “clean”. Traces of visible foreign matter — allowed for all classes



Photo 20

Minimum requirement:
“clean”. Traces of
visible foreign matter —
allowed for all classes

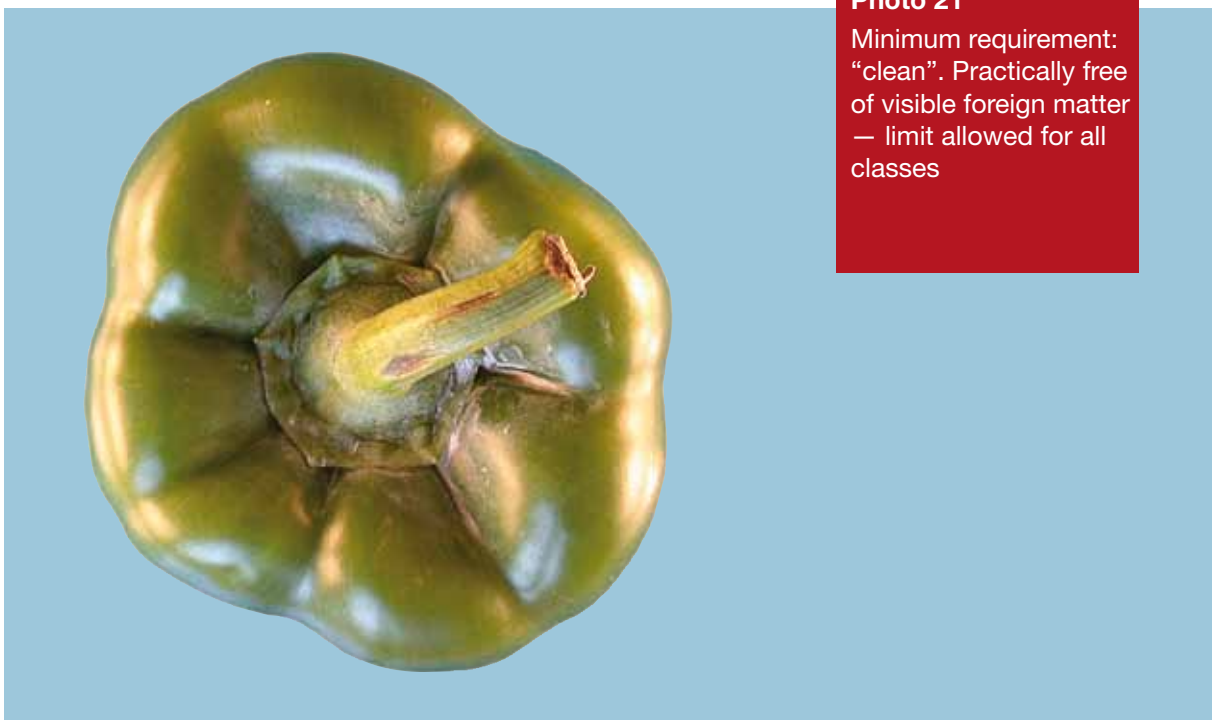


Photo 21

Minimum requirement:
“clean”. Practically free
of visible foreign matter
— limit allowed for all
classes



Photo 22

Minimum requirement:
“clean”. Foreign matter
— not allowed



Photo 23

Minimum requirement:
“clean”. Sooty mould
left from aphid
infestation — not
allowed

- fresh in appearance
- firm

Interpretation: The sweet peppers must be of acceptable freshness. A freshly harvested pepper or one from storage may be slightly soft but not shrivelled. **Photo 24**



Photo 24
Minimum requirements:
“fresh in appearance”
and “firm”. Serious
shrivelling — not
allowed

- practically free from pests

Interpretation: The presence of pests can detract from the commercial presentation and acceptance of the sweet peppers. Therefore, the acceptable limit would be the odd insect, mite or other pest in the package or sample; any colonies would lead to the rejection of the produce. **Photo 25**



Photo 25
Minimum requirement:
“practically free from
pests”. Colony of
insects — not allowed

- free from damage caused by pests affecting the flesh

Interpretation: The sweet peppers must be free of internal and external damage caused by pests affecting the flesh. Pest damage affecting the flesh makes the produce unfit for consumption. However, slight damage caused by pests affecting the skin only is allowed within the skin defects allowed within each class.

Examples related to the minimum requirement “free from damage caused by pests affecting the flesh” are shown in **Photos 26-27**.



Photo 26
Minimum requirement:
“free from damage
caused by pests
affecting the flesh”.
External pest damage
— not allowed



Photo 27
Minimum requirement:
“free from damage
caused by pests
affecting the flesh”.
Internal pest damage —
not allowed

- free of damage caused by low temperature or frost

Interpretation: Damage caused by freezing is not allowed. In addition, storage temperatures below the critical temperature of about 7° C may cause chilling injury such as sunken glassy spots coalescing and deteriorating once the produce is transferred to ambient temperatures. Chilling injury might be acceptable in the 10 % tolerance of Class II, provided the edibility is not affected. **Photos 28-31**

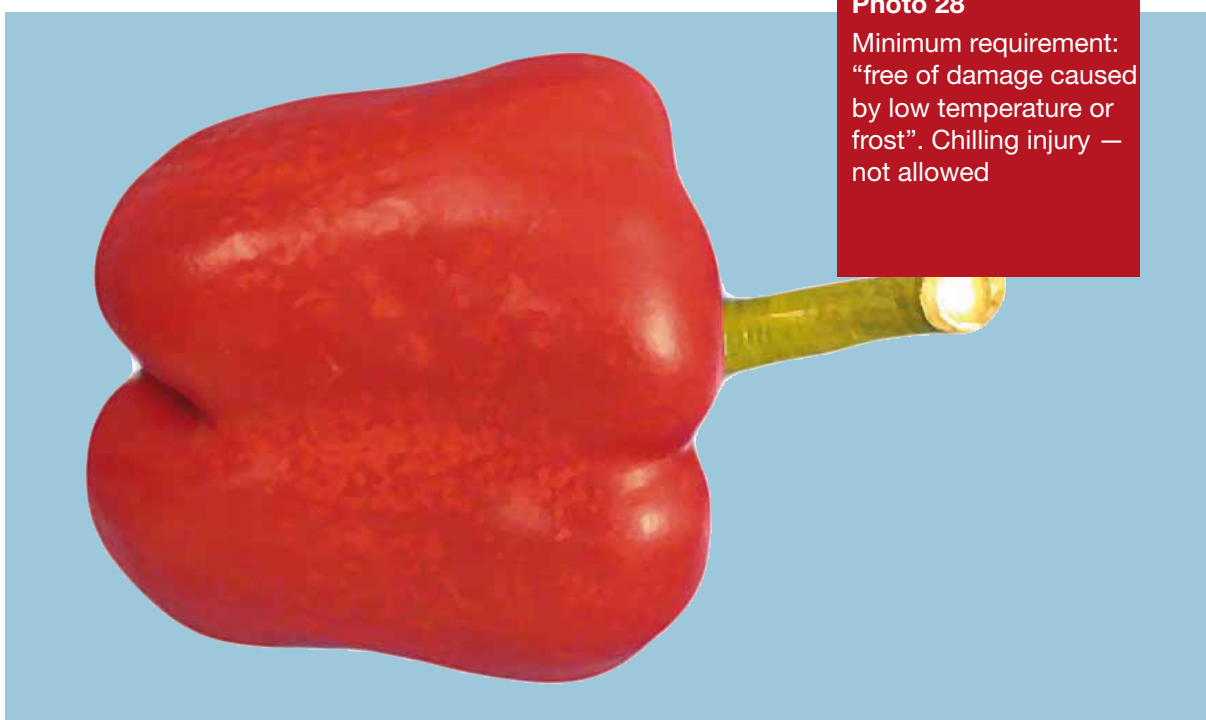


Photo 28
Minimum requirement:
“free of damage caused
by low temperature or
frost”. Chilling injury —
not allowed

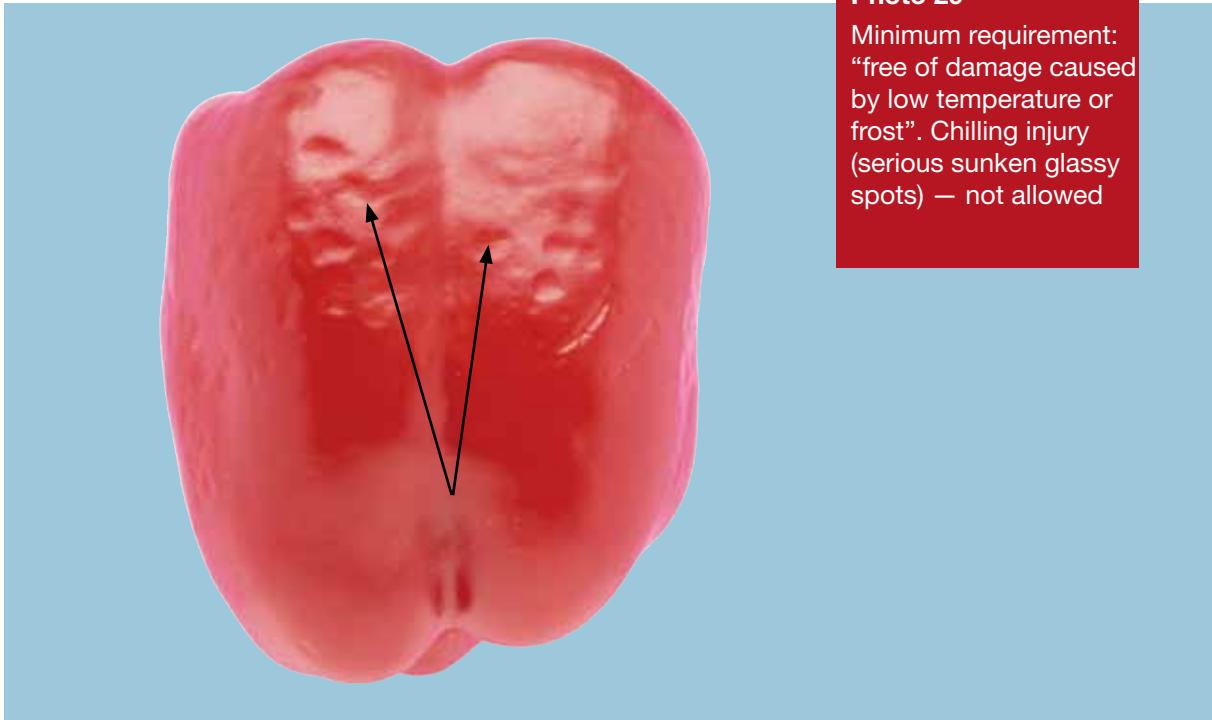


Photo 29

Minimum requirement:
“free of damage caused
by low temperature or
frost”. Chilling injury
(serious sunken glassy
spots) — not allowed



Photo 30

Minimum requirement:
“free of damage caused
by low temperature or
frost”. Freezing damage
— not allowed



Photo 31
Minimum requirement:
“free of damage caused
by low temperature or
frost”. Freezing damage
(internal view of the
damaged sweet pepper
on photo 30) —
not allowed

- with peduncles attached; the peduncle must be neatly cut and the calyx be intact

Interpretation: The peduncle must be present but it may be cut off at the level of the calyx. The calyx may be slightly damaged, but the greater part of the calyx must be present. The flesh must not be damaged.

Examples of this requirement are shown in **Photos 32-34**.



Photo 32
Minimum requirement:
“with peduncles
attached; the peduncle
must be neatly cut and
the calyx intact”. Intact
peduncle



Photo 33

Minimum requirement:
“with peduncles
attached; the peduncle
must be neatly cut and
the calyx intact”.
Peduncle cut off —
allowed

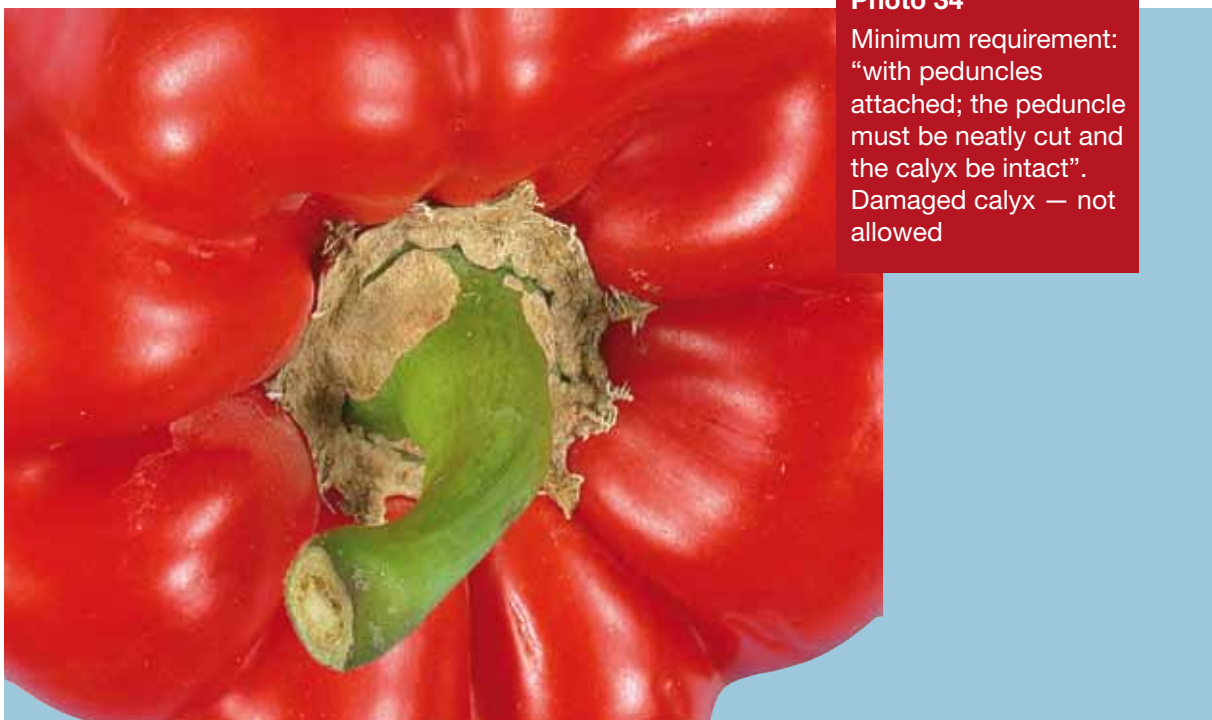


Photo 34

Minimum requirement:
“with peduncles
attached; the peduncle
must be neatly cut and
the calyx be intact”.
Damaged calyx —
not allowed

- free of abnormal external moisture

Interpretation: This provision applies to excessive moisture, for example, free water lying inside the package, but does not include condensation on produce following release from cool storage or a refrigerated vehicle.

- free of any foreign smell and/or taste.

Interpretation: This provision applies to sweet peppers stored or transported under poor conditions, which have consequently resulted in their absorbing abnormal smells and/or tastes, in particular through the proximity of other products which give off volatile odours.

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

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

B. Classification

Sweet peppers are classified in three classes, as defined below:

(i) *“Extra” Class*

Sweet peppers in this class must be of superior quality. 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.

Examples of “Extra” Class peppers are shown in **Photos 35-36**.



Photo 35

Classification:
“Extra” Class pepper.
Characteristic of the
commercial type
(elongated) — no
defects



Photo 36

Classification:
“Extra” Class. A very
slight superficial defect
— limit allowed

(ii) *Class I*

Sweet peppers 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:

- a slight defect in shape

Examples of Class I shape defects are shown in **Photos 37-38**.



Photo 37

Classification: “Class I,
a slight defect in
shape”. Square sweet
pepper
— limit allowed



Photo 38

Classification: “Class I, a slight defect in shape”. Elongated sweet pepper — limit allowed

- slight silvering or damage caused by thrips covering not more than 1/3 of the total surface area

Interpretation: Slight silvering on up to 1/3 of the total surface area is allowed. This may be caused by:

- lack of calcium during growth of the sweet pepper: **Photos 39-40**
- thrips or mites: **Photo 41.**

However, changes in coloration as the produce ripens are not considered a colour defect but are important for the uniformity requirements in Classes “Extra” and I. **Photo 42**



Photo 39

Classification: “Class I, slight silvering”. Caused by calcium deficiency, less than 1/3 of the total surface area — allowed



Photo 40

Classification: "Class I, slight silvering". Caused by calcium deficiency, 1/3 of the total surface area — limit allowed



Photo 41

Classification: "Class I, slight damage caused by thrips". 1/3 of the total surface area — limit allowed



Photo 42

Classification: Change in coloration as produce ripens — allowed in all classes

- slight skin defects, such as

- pitting, scratching, sunburn, pressure marks covering in total not more than 2 cm for defects of elongated shape, and 1 cm² for other defects; or
- dry superficial cracks covering in total not more than 1/8 of the total surface area

Interpretation: Slight pitting (surface spotting), up to two slight spots is allowed in Class I. Spots must be sound and showing no form of deterioration on the inside. **Photo 43**

Advice: It is recommended that at the packing stage grading be restrictive for progressive defects such as pitting.

Slight scratching or scarring on the body of the sweet pepper is allowed, provided the area affected does not exceed the area specified for Class I. **Photos 44-45**

Slight sunburn is allowed, provided the area affected does not exceed the area specified for Class I. **Photo 46**

Slight pressure marks are allowed, provided the area affected does not exceed the area specified for Class I and the pressure marks do not affect the flesh. **Photos 47-48**

Dry superficial cracks are allowed, provided the area affected does not exceed the area specified for Class I. Any cracks should be shallow and not discoloured. **Photo 49**



Photo 43

Classification: "Class I, slight skin defects".
Pitting — limit allowed



Photo 44

Classification: "Class I, slight skin defects".
Slight surface scratching — limit allowed



Photo 45

Classification: "Class I, slight skin defects".
Slight surface scratching — limit allowed



Photo 46

Classification: "Class I, slight skin defects".
Slight sunburn — limit allowed



Photo 47

Classification: "Class I, slight skin defects".
Slight pressure marks
— limit allowed



Photo 48

Classification: "Class I, slight skin defects".
Slight pressure marks
— limit allowed



Photo 49

Classification: “Class I, slight skin defects”. Fine surface cracking on 1/8 of the total surface area — limit allowed

- slightly damaged peduncle.

Interpretation: The peduncle may be cut off at the level of the calyx but the calyx must remain largely undamaged. The peduncle, if present, may be damaged or torn. **Photo 50**

Advice: It is recommended that at the packing stage grading be restrictive for this defect, as a damaged peduncle or calyx is likely to be the entry for rotting and mould.



Photo 50

Classification: “Class I, slightly damaged peduncle” — limit allowed

(iii) **Class II**

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

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

- defects in shape

Interpretation: Defects of shape and development are allowed. Peppers with shape defects affecting edibility are excluded.

Examples of Class II shape defects are shown in **Photos 51-57**.



Photo 51
Classification: "Class II, defects in shape".
Square type, shape defects — allowed



Photo 52

Classification: “Class II, defects in shape”.
Square type, shape defects — allowed

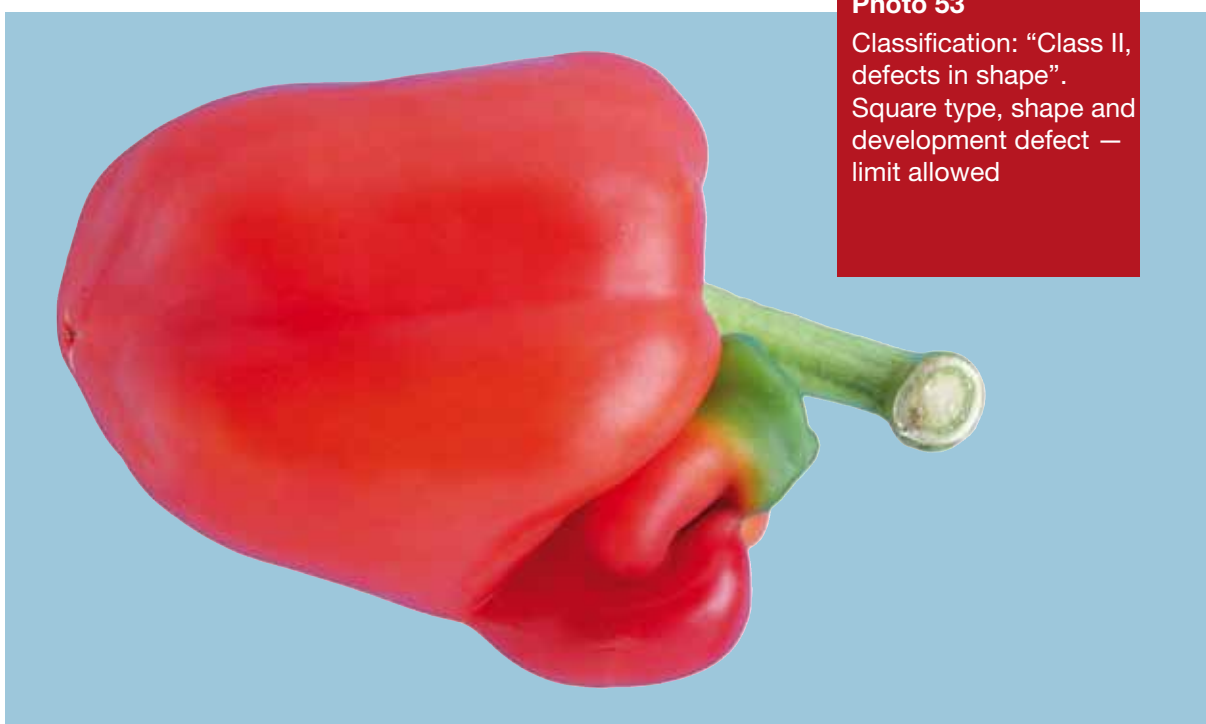


Photo 53

Classification: “Class II, defects in shape”.
Square type, shape and development defect — limit allowed



Photo 54

Classification: "Class II, defects in shape".
Elongated type, shape and development defect — allowed



Photo 55

Classification: "Class II, defects in shape".
Elongated type, shape and development defect — allowed



Photo 56

Classification: “Class II, defects in shape”.
Elongated type, shape and development defect — allowed



Photo 57

Classification: “Class II, defects in shape”.
Square type, shape and development defect with slight corky area — not allowed

- silvering or damage caused by thrips covering not more than 2/3 of the total surface area.

Interpretation: Silvering and discolouration on up to 2/3 of the total surface area is allowed. This may be caused by:

- lack of calcium during growth of the sweet pepper
- thrips or mites. **Photo 58**



Photo 58
Classification: "Class II, damage caused by thrips". 2/3 of the total surface area — limit allowed

- skin defects, such as:

- **pitting, scratching, sunburn, bruising, and healed injuries covering in total not more than 4 cm in length for defects of elongated shape and 2.5 cm² of the total area for other defects; or**
- **dry superficial cracks covering in total not more than 1/4 of the total surface area**

Examples of Class II skin defects are shown in **Photos 59-67**.

Interpretation: Pitting (surface spotting), up to five slight spots is allowed in Class II. Spots must be sound and showing no form of deterioration on the inside. **Photo 59**

Advice: It is recommended that at the packing stage grading be restrictive for progressive defects such as pitting.

Scratching or scarring on the body of the sweet pepper is allowed, provided the area affected does not exceed the area specified for Class II. **Photos 60-61**

Sunburn is allowed, provided the area affected does not exceed the area specified for Class II. **Photo 62**

Bruising is allowed, provided the area affected does not exceed the area specified for Class II and the pressure marks do not affect the flesh. **Photo 63**

Healed injuries: Small punctures caused, for example, by the stalk from an adjacent pepper or cuts caused during picking, or small areas of superficial pest damage, are allowed as long as they are healed and dry and will not cause further deterioration. **Photos 64-65**

Dry superficial cracks are allowed, provided the area affected does not exceed the area specified for Class II. Any cracks should be shallow and not discoloured. **Photos 66-67**



Photo 59

Classification: "Class II, skin defects". Pitting — limit allowed



Photo 60

Classification: "Class II, skin defects". Scarring or scratching up to 2.5 cm²— limit allowed



Photo 61

Classification: "Class II, skin defects". Scarring or scratching — limit allowed



Photo 62

Classification: "Class II, skin defects". Sunburn — limit allowed



Photo 63

Classification: "Class II, skin defects". Bruising — limit allowed



Photo 64

Classification: "Class II, skin defects". Dry injuries — limit allowed



Photo 65

Classification: "Class II, skin defects". Superficial pest damage — limit allowed



Photo 66

Classification: "Class II, skin defects". Dry superficial cracks on 1/4 of the total surface — limit allowed



Photo 67

Classification: "Class II, skin defects". Cracking, scarring or scratching around neck of sweet pepper — limit allowed

- blossom end deterioration not more than 1 cm²

Interpretation: Blossom end deterioration is allowed, provided the pale discoloured, leathery area at the distal end is dry and not exceeding 1 cm². **Photo 68**



Photo 68

Classification: “Class II, blossom end deterioration” — limit allowed

- shrivelling not exceeding 1/3 of the surface

Interpretation: Slight shrivelling or lack of turgidity covering up to 1/3 of the sweet pepper is allowed, as long as the sweet pepper remains reasonably firm. **Photo 69**

Advice: It is recommended that at the packing stage grading be restrictive for progressive defects such as shrivelling.



Photo 69

Classification: “Class II, shrivelling” — limit allowed

- **damaged peduncle and calyx, provided the surrounding flesh remains intact.**

Interpretation: The peduncle may be damaged, cut or torn, but the base must remain. Parts of the calyx may be missing, due to pest or handling damage, but the flesh and skin of the produce must not be damaged. Decay on the non-edible calyx is only allowed in the tolerances of Class II.

Examples of Class II damage to the peduncle and/or calyx are shown in **Photos 70-73**.



Photo 70

Classification: “Class II, damaged peduncle and calyx”. Damage to the calyx — allowed



Photo 71

Classification: “Class II, damaged peduncle and calyx”. Damage to the calyx — limit allowed



Photo 72

Classification: “Class II, damaged peduncle and calyx”. Damage to peduncle and calyx — limit allowed



Photo 73

Classification: “Class II, damaged peduncle and calyx”. Damage to peduncle and calyx — limit allowed



Provisions concerning Sizing

III. Provisions concerning Sizing

Size is determined by the maximum equatorial diameter or by weight.

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

(a) For sweet peppers sized by diameter:

- 20 mm

(b) For sweet peppers sized by weight:

- 30 g where the heaviest piece weighs 180 g or less

- 80 g where the lightest piece weighs more than 180 g but less than 260 g

- no limit where the lightest piece weighs 260 g or more

Elongated sweet peppers should be sufficiently uniform in length.

Uniformity in size is not compulsory for Class II.

Interpretation: Although sizing is optional for Class II, it is possible to use the grading by weight or diameter to improve the uniformity within the package.



Provisions concerning Tolerances

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.

Interpretation: Tolerances are provided to allow for deviation in handling and for natural deterioration of fresh produce over time.

To determine conformity with the tolerances, samples are taken according to Annex II of the OECD Council Decision [C(2006)95]*. Decision on conformity of the lot is taken depending on the percentage of non-conforming produce in the total sample.

A. Quality tolerances

(i) *“Extra” Class*

A total tolerance of 5 per cent, by number or weight, of sweet peppers 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 sweet peppers 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.

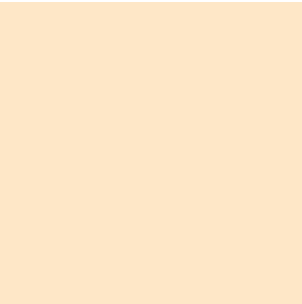
(ii) *Class II*

A total tolerance of 10 per cent, by number or weight, of sweet peppers 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 (if sized): a total tolerance of 10 per cent, by number or weight, of sweet peppers not satisfying the requirements as regards sizing is allowed.

* Downloadable from: www.oecd.org/dataoecd/33/0/19517729.pdf



Provisions concerning Presentation

V. Provisions concerning Presentation

A. Uniformity

The contents of each package must be uniform and contain only sweet peppers of the same origin, variety or commercial type, quality and size (if sized) and, in the case of Classes “Extra” and I, of appreciably the same degree of ripeness and colouring.

Interpretation: For sweet peppers turning colour, uniformity may change during transportation. In Class II, mixing produce of different colouring and size is allowed.

Examples of uniform presentations are shown in **Photos 74-75**.



Photo 74
Presentation:
“Uniformity” —
elongated peppers
uniform in colouring
(turning) and size
(length and diameter) in
accordance with Class I



Photo 75
Presentation:
“Uniformity” —
acceptable colour
range for peppers
turning colour in
Classes “Extra” and I

However, a mixture of sweet peppers of distinctly different colours and/or commercial types may be packed together in a package, provided they are uniform in quality and, for each commercial type and/or colour concerned, in origin. However, in case of those mixtures, uniformity in size is not required.

Interpretation: Uniformity of size in mixtures of distinctly different colours and/or commercial types is not required.

Examples of mixtures are shown in **Photos 76-78**.



Photo 76
Presentation:
“Uniformity” — mixture
of sweet peppers of
distinctly different
colours of the same
type in a package

Photo 77

Presentation:
“Uniformity” — mixture
of sweet peppers of
distinctly different
colours of the same
type in a sales unit



Photo 78

Presentation:
“Uniformity” — mixture
of sweet peppers of
distinctly different
colours and types in a
sales unit



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

Interpretation: Any attempt to deceive by placing superior product on the top layer is not allowed.

Examples of visibly representative contents are shown in **Photos 79-80**.



Photo 79
Presentation:
“Uniformity” — Class I
careful presentation



Photo 80
Presentation:
“Uniformity” — Class II
suitable presentation

B. Packaging

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

Interpretation: Packaging must be of such quality and strength as to protect the sweet peppers during transportation and handling. **Photos 81-82**



Photo 81
Presentation:
“Packaging” — sales
unit of mini sweet
peppers



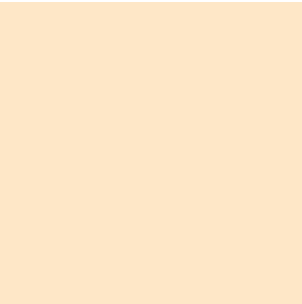
Photo 82

Presentation:
“Packaging” – sales
unit

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 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.

Packages must be free of all foreign matter.



Provisions concerning Marking

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:

Interpretation: On each package, all particulars must be grouped on the same side of the package, either on a label attached to or printed on the package with water insoluble ink. In case of re-used packages, all labels must be carefully removed and/or previous indications deleted.

A. Identification

Packer and/or dispatcher/exporter:

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 authority³. If the country applying such a system is listed in the UNECE database.

Interpretation: For inspection purposes, the “packer” is the person or firm responsible for the packaging of the produce (this does not mean the staff that actually carry out the work, who are responsible only to their employer). The code mark is not a trademark but an official control system enabling the person or firm responsible for packaging to be readily identified. The dispatcher (shipper or exporter) may, however, assume sole responsibility, in which case identification of the “packer” as defined above is optional.

Examples of identification are shown in **Photos 83-85**.

² These marking provisions do not apply to sales packages presented in packages. However, they do apply to sales packages (pre-packages) presented individually.

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, 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



Photo 83
Marking: “Identification”
— packer/dispatcher
address



Photo 84

Marking:
“Identification” – local
size code (“Calibre GG”)
is optional



Photo 85

Marking: “Identification”
– officially recognized
code mark

B. Nature of produce

- “Sweet peppers”, if the contents are not visible from the outside
- “Mixture of sweet peppers”, or equivalent denomination, in the case of a mixture of distinctly different commercial types and/or colours of sweet peppers. If the produce is not visible from the outside, the commercial types and/or colours and the quantity of each in the package must be indicated.

C. Origin of produce

- Country of origin⁴ and, optionally, district where grown or national, regional or local place name
- In the case of a mixture of distinctly different commercial types and/or colours of sweet peppers of different origins, the indication of each country of origin shall appear next to the name of the commercial type and/or colour concerned. **Photo 86**
- “(Name of type or variety) may have a slightly hot taste“ or equivalent information, where appropriate.

D. Commercial specifications

- Class
- Size (if sized) expressed as minimum and maximum diameters or minimum and maximum weight
- Number of units (optional)
- “Hot” or equivalent denomination, where appropriate.

E. Official control mark (optional)

⁴ The full or a commonly used name should be indicated.

**Photo 86**

Marking: “Origin of produce” — sales package of mixed origins

UNECE STANDARD FFV-28 concerning the marketing and commercial quality control of **SWEET PEPPERS** 2018 edition

I. Definition of Produce

This standard applies to sweet peppers of varieties¹ (cultivars) grown from *Capsicum annuum* L. to be supplied fresh to the consumer, sweet peppers for industrial processing being excluded.

II. Provisions concerning Quality

The purpose of the standard is to define the quality requirements for sweet peppers 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 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 sweet peppers 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
- firm
- practically free from pests
- free from damage caused by pests affecting the flesh
- free of damage caused by low temperature or frost
- with peduncles attached; the peduncle must be neatly cut and the calyx be intact
- free of abnormal external moisture
- free of any foreign smell and/or taste.

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

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

¹ Some of the sweet pepper varieties may have a slightly hot taste. Examples of commercial varieties of sweet peppers having a slightly hot taste are Sivri and Padron.

B. Classification

Sweet peppers are classified in three classes, as defined below:

(i) "Extra" Class

Sweet peppers in this class must be of superior quality. 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

Sweet peppers 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:

- a slight defect in shape
- slight silvering or damage caused by thrips covering not more than 1/3 of the total surface area
- slight skin defects, such as:
 - pitting, scratching, sunburn, pressure marks covering in total not more than 2 cm for defects of elongated shape, and 1 cm² for other defects; or
 - dry superficial cracks covering in total not more than 1/8 of the total surface area
- slightly damaged peduncle.

(iii) Class II

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

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

- defects in shape
- silvering or damage caused by thrips covering not more than 2/3 of the total surface area
- skin defects, such as:
 - pitting, scratching, sunburn, bruising, and healed injuries covering in total not more than 4 cm in length for defects of elongated shape and 2.5 cm² of the total area for other defects; or
 - dry superficial cracks covering in total not more than 1/4 of the total surface area
- blossom end deterioration not more than 1 cm²
- shrivelling not exceeding 1/3 of the surface
- damaged peduncle and calyx, provided the surrounding flesh remains intact.

III. Provisions concerning Sizing

Size is determined by the maximum equatorial diameter or by weight.

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

- (a) For sweet peppers sized by diameter:
 - 20 mm
- (b) For sweet peppers sized by weight:
 - 30 g where the heaviest piece weighs 180 g or less
 - 80 g where the lightest piece weighs more than 180 g but less than 260 g
 - no limit where the lightest piece weighs 260 g or more

Elongated sweet peppers should be sufficiently uniform in length.

Uniformity in size is not compulsory for Class II.

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 sweet peppers 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 sweet peppers 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.

(ii) Class II

A total tolerance of 10 per cent, by number or weight, of sweet peppers 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 (if sized): a total tolerance of 10 per cent, by number or weight, of sweet peppers not satisfying the requirements as regards sizing is allowed.

V. Provisions concerning Presentation

A. Uniformity

The contents of each package must be uniform and contain only sweet peppers of the same origin, variety or commercial type, quality and size (if sized) and, in the case of Classes “Extra” and I, of appreciably the same degree of ripeness and colouring.

However, a mixture of sweet peppers of distinctly different colours and/or commercial types may be packed together in a package, provided they are uniform in quality and, for each commercial type and/or colour concerned, in 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 sweet peppers 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 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.

Packages must be free of all foreign matter.

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 and/or dispatcher/exporter:

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 authority³, if a country applying such a system is listed in the UNECE database.

B. Nature of produce

- “Sweet peppers”, if the contents are not visible from the outside
- “Mixture of sweet peppers”, or equivalent denomination, in the case of a mixture of distinctly different commercial types and/or colours of sweet peppers. If the produce is not visible from the outside, the commercial types and/or colours and the quantity of each in the package must be indicated.

C. Origin of produce

- Country of origin⁴ and, optionally, district where grown or national, regional or local place name
- In the case of a mixture of distinctly different commercial types and/or colours of sweet peppers of different origins, the indication of each country of origin shall appear next to the name of the commercial type and/or colour concerned.

D. Commercial specifications

- Class
- Size (if sized) expressed as minimum and maximum diameters or minimum and maximum weight
- Number of units (optional)
- “(Name of type or variety) may have a slightly hot taste” or equivalent information, where appropriate.

E. Official control mark (optional)

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Adopted 1969

Last revised 2018

Aligned with the Standard Layout 2017

The UNECE has published an explanatory illustrated brochure on the application of this standard.

The publication may be obtained from the UNECE at:

www.unece.org/trade/agr/welcome.htm

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² These marking provisions do not apply to sales packages presented in packages. However, they do apply to sales packages (pre-packages) presented individually)

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, 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.

⁴ The full or a commonly used name should be indicated.

