

UNECE Standard on the marketing
and commercial quality control of



Persimmons

Explanatory Brochure



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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 Persimmons 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 Persimmons (FFV-63), which was officially adopted in November 2015. Subsequent revisions to the Standard will be placed on the website at: www.unece.org/trade/agr/standard/fresh/FFV-Standards.html

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/welcome.html.

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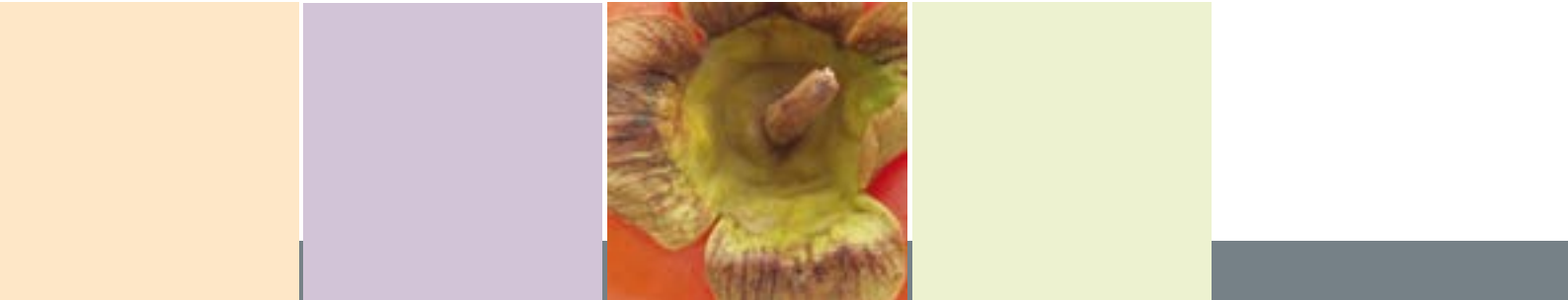
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The official text of the standard is indicated in blue bold type; the interpretative text of the standard is indicated in black. References to photos representing the visual interpretation are printed in black bold. The entire text of the standard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



Definition of Produce

I. Definition of Produce

This standard applies to persimmons (kaki) of varieties (cultivars) grown from *Diospyros kaki* L. f. to be supplied fresh to the consumer, persimmons for industrial processing being excluded.

Interpretation: Persimmon varieties vary by:

- fruit size - from small to medium-sized or large fruits
- fruit shape - longitudinal section: round to oblate or flattened; cross section: round to four-sided and more or less furrowed
- skin colour - light yellow-orange to orange-red
- flesh colour - yellow to red.

Persimmon varieties are generally classified into four major groups:

- Pollination Constant Non-Astringent (PCNA):** varieties producing non-astringent fruits at harvest, regardless of the presence of seeds. The flesh is light-coloured with, on rare occasions, very small brown spots. Hard-ripe fruits are edible at harvest irrespective of the presence of the seed set. Examples of varieties: Fuyu (Fuyugaki), Jiro, Hana Fuyu, O'Gosho.
- Pollination Variant Non-Astringent (PVNA):** varieties producing non-astringent fruits when fertilized. Depending on the variety within this group, the number of seeds (1 to 8) can be an indication of fruit astringency at harvest; normally the presence of a few seeds would guarantee the edibility of the fruit. The flesh is brown and often rich in dark spots. Fruits are not edible at harvest, if parthenocarpic; they become edible after natural softening or artificial removal of astringency. Examples of varieties: Kaki Tipo (Loto di Romagna), Nishimura Wase, Shogatsu, Zenji Maru.
- Pollination Constant Astringent (PCA):** varieties producing astringent fruits at harvest, regardless of the presence of seeds. The flesh is light-coloured. Fruits become edible after natural softening or artificial removal of astringency. Examples of varieties: Hachiya, Atago, Yokono, Flat Seedless, Rojo Brillante.
- Pollination Variant Astringent (PVA):** varieties producing astringent fruits, regardless of fertilization. Fertilization removes the astringency only around the seeds, where there are brown spots. The number of seeds is irrelevant for fruit astringency at harvest; fruits with 8 seeds are still astringent. Hiratanenashi and its mutants belong to this group, although normally they do not bring seeds even when pollinated. Depending on the variety, the flesh is light-orange or dark-brown. Examples of varieties: Triumph, Hyakume, Chocolate, Maru, Tonewase, Fude.

Examples of commercially grown varieties are shown in **Photos 1-5**.



Photo 1

Definition of produce
– variety Fuyu

Photo 2
Definition of produce
– variety Kaki Tipo



Photo 3
Definition of produce
– variety Rojo Brillante



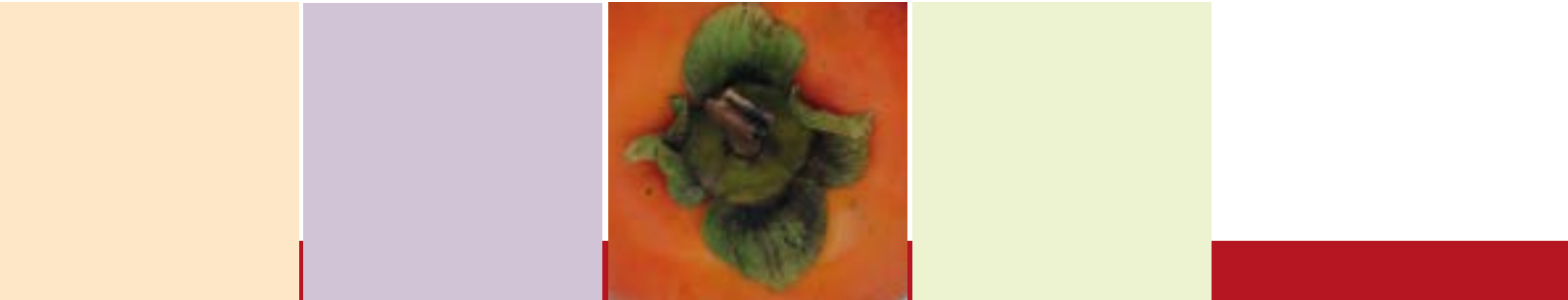


Photo 4
Definition of produce
– variety Triumph

4



Photo 5
Definition of produce
– variety Fude



Provisions concerning Quality

II. Provisions concerning Quality

The purpose of the standard is to define the quality requirements for persimmons 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.

Advice: At the packing stage, special attention should be paid to ensure 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 persimmons must be:

- intact, with the calyx attached, which may be with or without peduncle and dry and brown

Interpretation: Persimmons must not have any damage or injury affecting the integrity of the produce. Persimmons with mechanical damage, unhealed injuries, punctures or cracks exposing the interior of the produce are not allowed.

At marketing stages after harvest, the calyx may be dry and of yellowish to brownish colour.

Advice: Removing the peduncle helps to avoid any damage to neighbouring fruits.

Examples related to the minimum requirement “intact” are shown in **Photos 6-10**.



Photo 6
Minimum requirement:
“intact, with calyx
attached”. Fruit with
calyx attached, with
and without peduncle –
allowed

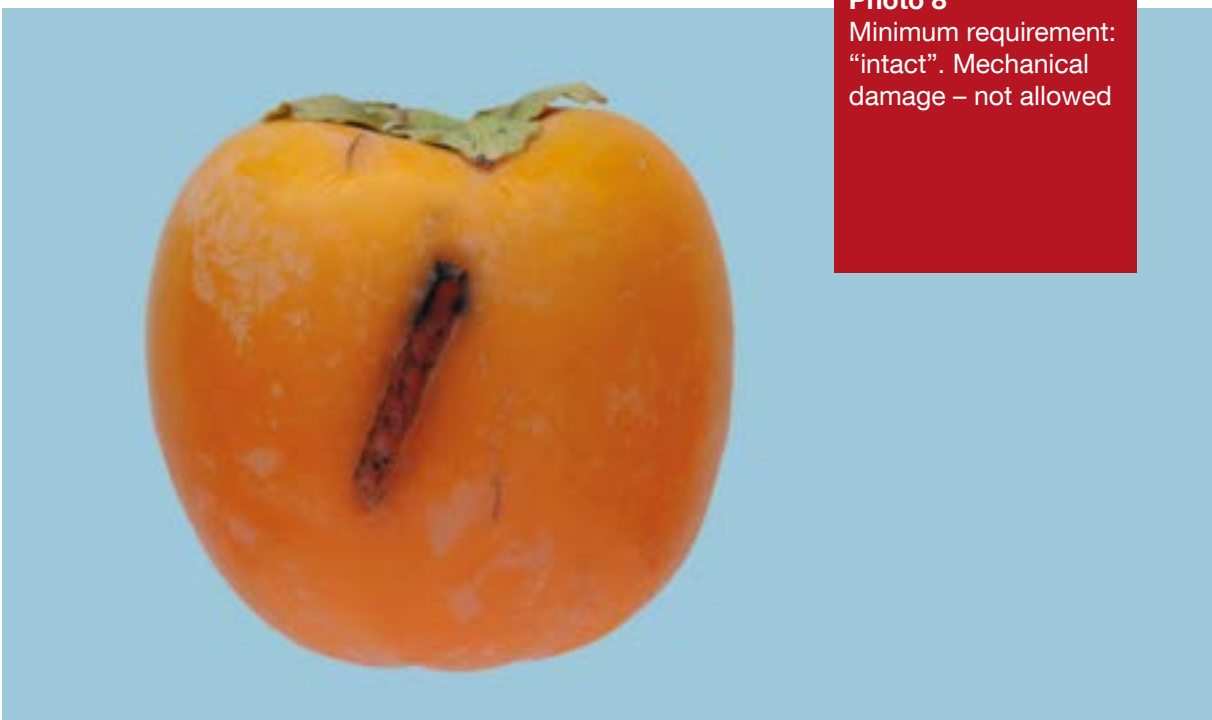
Photo 7

Minimum requirement:
“intact, with calyx
attached”. Split under
calyx – not allowed



Photo 8

Minimum requirement:
“intact”. Mechanical
damage – not allowed



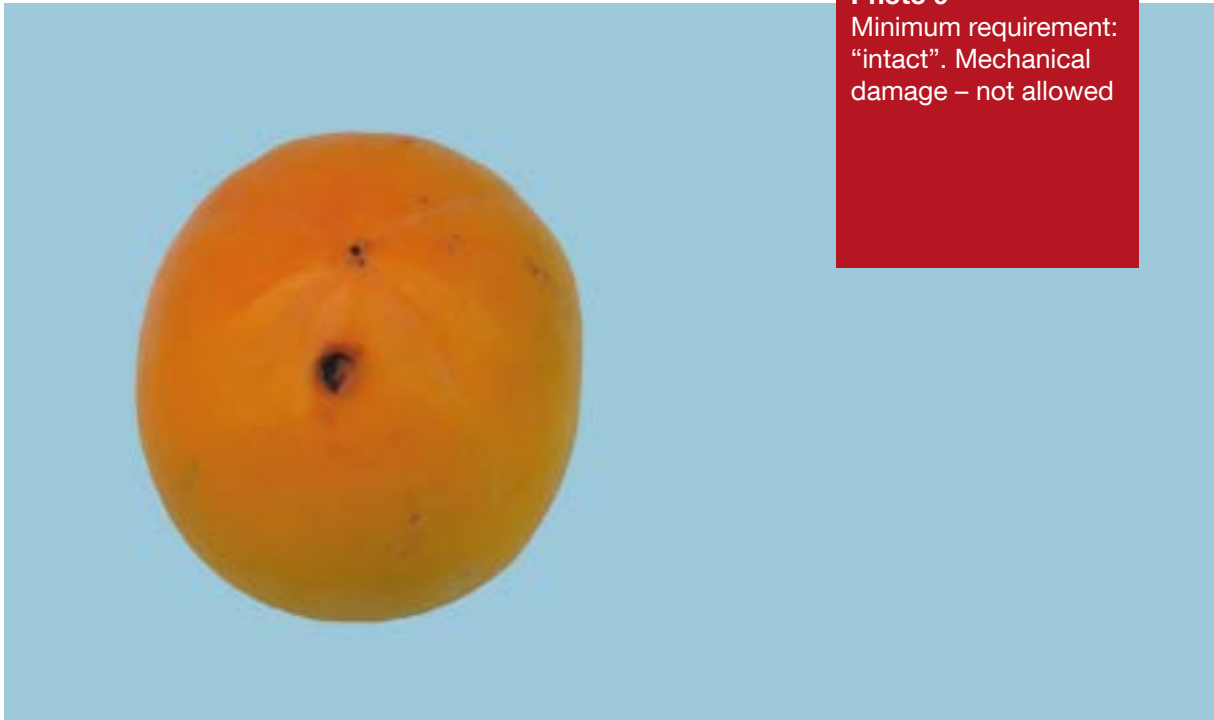


Photo 9
Minimum requirement:
“intact”. Mechanical
damage – not allowed



Photo 10
Minimum requirement:
“intact”. Split fruit
– not allowed

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

Interpretation: Persimmons must be free from disease (caused by fungi, bacteria or viruses), physiological disorders or serious deterioration, which appreciably affect their appearance, edibility or keeping quality. Persimmons affected by rotting, even if the signs are very slight but liable to make the fruit unfit for consumption upon arrival at destination, should be excluded.

The persimmons with the following defects are therefore excluded:

- rotting
- mould
- serious sun-scorch affecting the flesh
- serious bruising
- serious internal discolouration

Note: This is not considered as a defect for the varieties for which brown flesh is characteristic.

- freezing damage.

Note: Chilling injury (damage caused by low temperature) appears as glassiness developing directly under the skin and progressing towards the core once the fruit has been moved to ambient temperature. The peel is of dull brownish colour.

Examples related to the minimum requirement “sound” are shown in **Photos 11-18**.



Photo 11
Minimum requirement:
“sound”. Signs of
rotting – not allowed



Photo 12
Minimum requirement:
“sound”. Mould – not
allowed

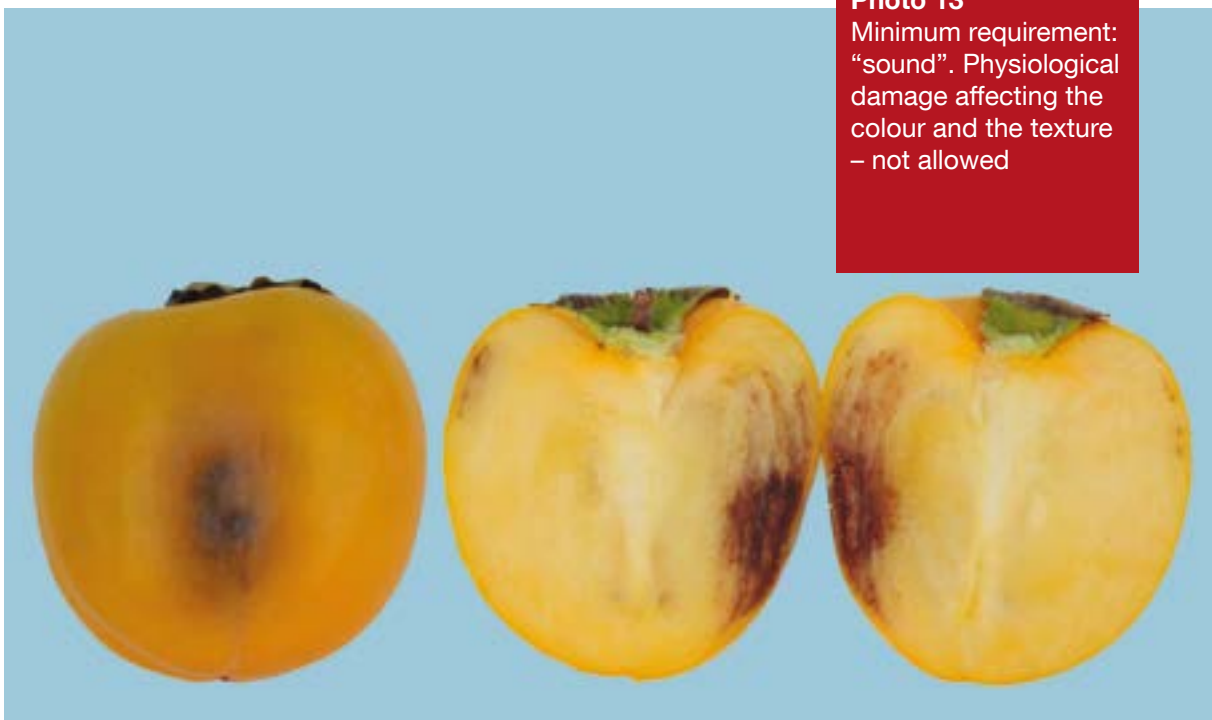


Photo 13
Minimum requirement:
“sound”. Physiological
damage affecting the
colour and the texture
– not allowed

Photo 14

Minimum requirement:
“sound”. Serious hail
damage affecting the
flesh – not allowed

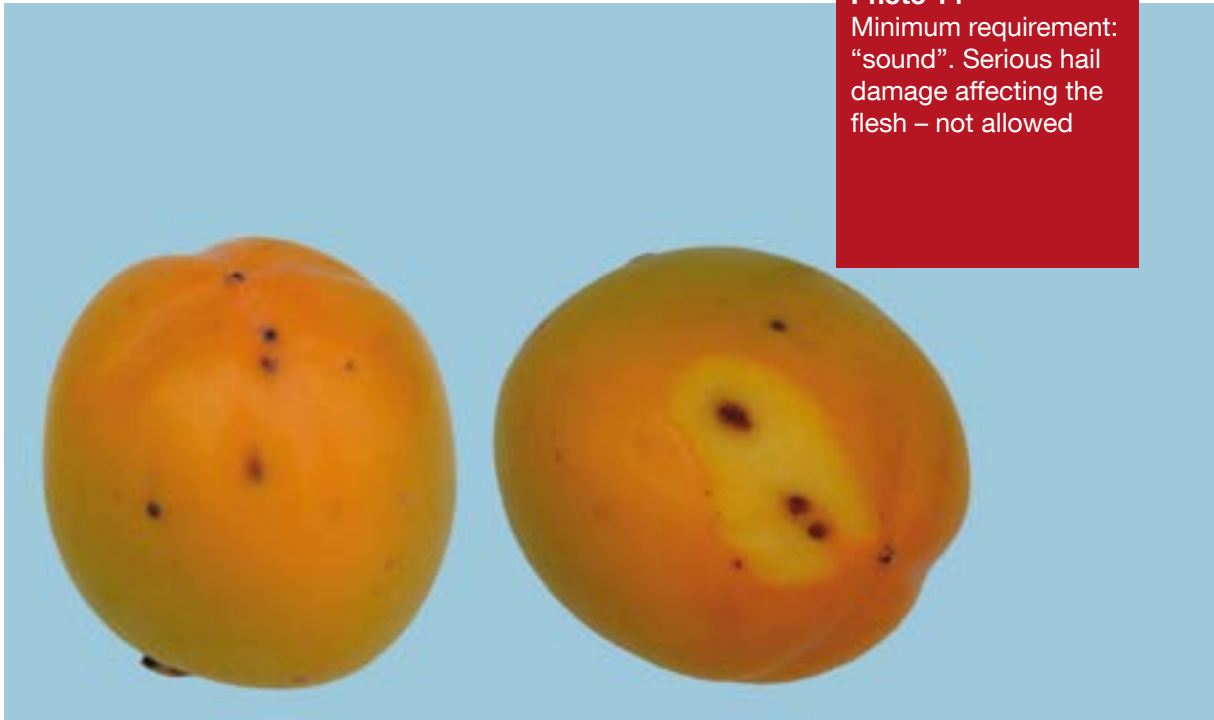


Photo 15

Minimum requirement:
“sound”. Serious sun-
scorch affecting the
flesh – not allowed



Photo 16

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



Photo 17

Minimum requirement:
“sound”. Serious
internal discolouration
exceeding $\frac{1}{2}$ of the
cross section area
– not allowed





Photo 18
Minimum requirement:
“sound”. Freezing
injury – not allowed

- clean, practically free of any visible foreign matter

Interpretation: The presence of visible foreign matter can detract from commercial presentation and acceptance of persimmons. Therefore, the acceptable limit for “practically free” would be – in all classes – very slight traces of dust. 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 related to the minimum requirement “clean” are shown in **Photos 19-23**.

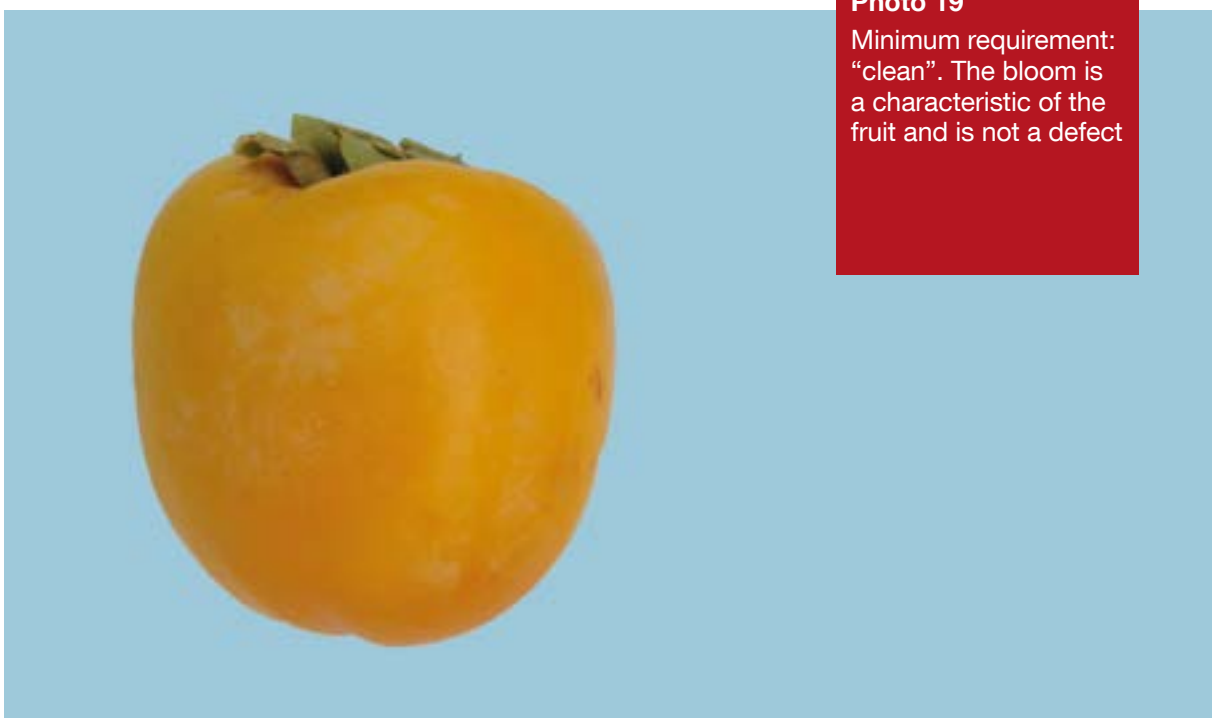


Photo 19
Minimum requirement:
“clean”. The bloom is
a characteristic of the
fruit and is not a defect



Photo 20

Minimum requirement:
“clean”. Dust on calyx
– limit allowed in all
classes



Photo 21

Minimum requirement:
“clean”. Traces of
foreign matter on fruit
– limit allowed in all
classes



Photo 22

Minimum requirement:
“clean”. Soiled fruit
– not allowed



Photo 23

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

- practically free from pests

Interpretation: The presence of pests can detract from the commercial presentation and acceptance of the persimmons. Therefore, the acceptable limit for “practically free” would be – in all classes – the odd insect, mite or other pests in the package or sample; any colonies are not allowed.

Examples related to the minimum requirement “practically free from pests” are shown in **Photos 24-25**.



Photo 24
Minimum requirement:
“practically free from
pests”. One pest under
the calyx – limit allowed
in all classes

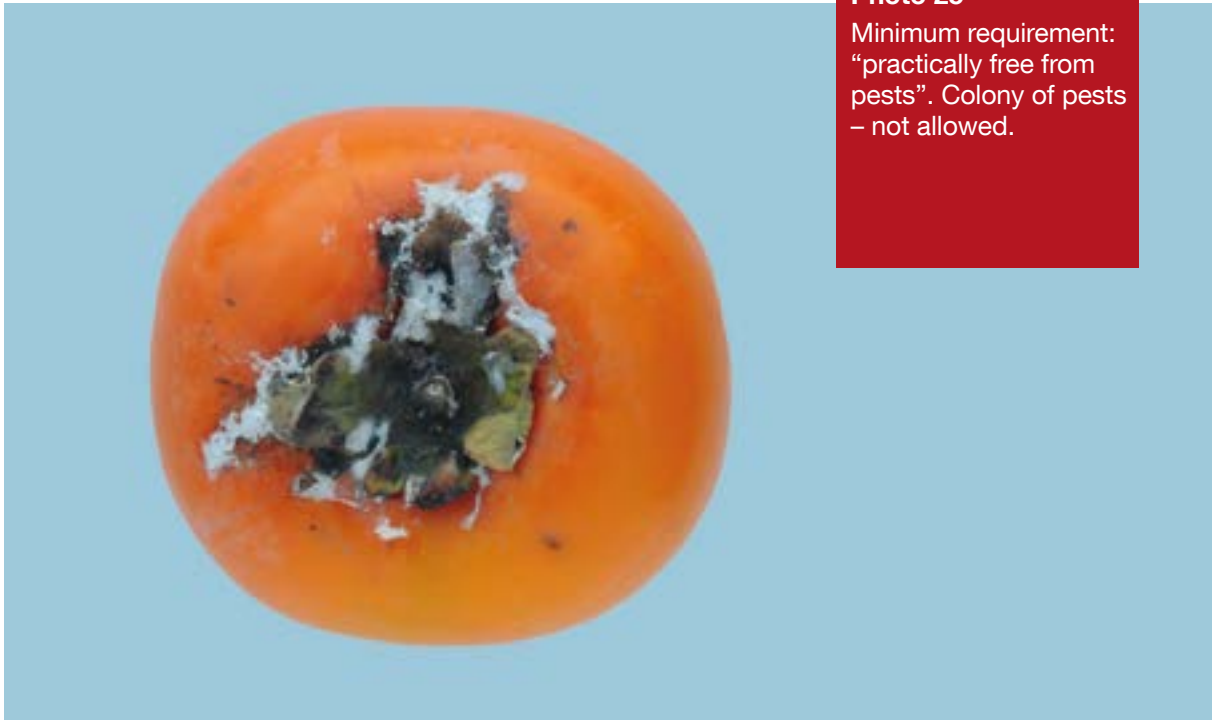


Photo 25

Minimum requirement:
“practically free from
pests”. Colony of pests
– not allowed.

- free from damage caused by pests affecting the flesh

Interpretation: Pest damage affecting the flesh makes the produce unfit for consumption and is not allowed. Any pest damage affecting the skin only is assessed within the limits allowed for skin defects in the respective classes.

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

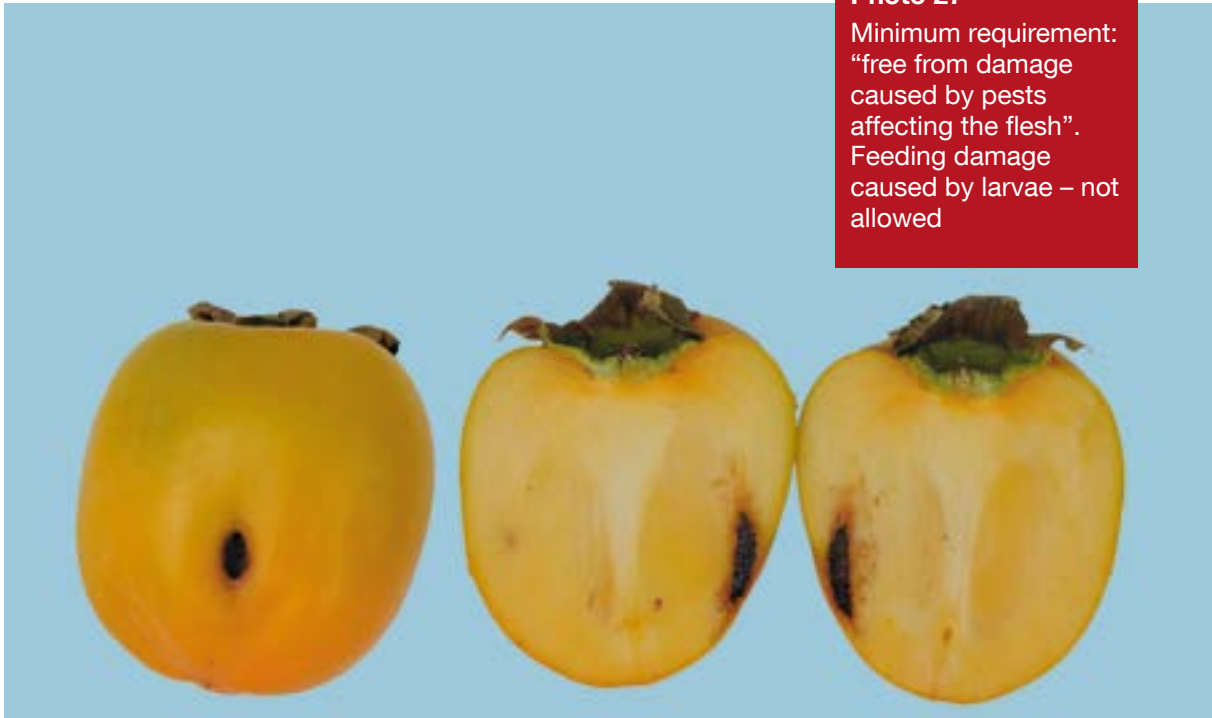


Photo 26

Minimum requirement:
“free from damage
caused by pests
affecting the flesh”. A
hole left by a fruit fly
larvae leaving the fruit
– not allowed

Photo 27

Minimum requirement:
“free from damage
caused by pests
affecting the flesh”.
Feeding damage
caused by larvae – 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 refrigerated vehicle.

- free of any foreign smell and/or taste.

Interpretation: This provision applies to persimmons 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 persimmons 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 persimmons must be sufficiently developed, and display satisfactory ripeness. The development and state of maturity of the persimmons must be such as to enable them to continue their ripening process and to reach the degree of ripeness required in relation to the varietal characteristics.

Interpretation: Shape, size and surface colour convey information about the maturity level of a specific variety.

At least the lower 1/3 of the fruit should be yellow or the colour of the fruit should be turning.

Interpretation: Once picked, persimmons continue to mature, provided the fruit has reached the stage of maturity ensuring proper completion of the ripening process resulting in normal taste, flavour and odour.

Examples related to the maturity requirement “satisfactory ripeness” are shown in **Photos 28-33**.



Photo 28

Maturity requirement: “satisfactory ripeness”.
 Rojo Brillante: Top left fruit (totally green) is not sufficiently mature. Middle top fruit (1/3 of the surface is yellow) is sufficiently mature. Middle bottom fruit (orange) is ripe and ready for consumption as firm fruit provided the astringency has been removed, the right bottom one (red) is ripe and ready for consumption as soft fruit.



Photo 29

Maturity requirement: "satisfactory ripeness". Kaki Tipo: Maturity on the tree. Top left fruit (totally green) is not sufficiently mature. All other fruits are sufficiently mature. Middle top fruit (turning yellow) is sufficiently mature for picking.



Photo 30

Maturity requirement: "satisfactory ripeness". Kaki Tipo: Maturity after CO₂ and ethylene treatment. All fruits are sufficiently mature. Middle bottom fruit is ready for consumption as firm fruit, right bottom as soft fruit.



Photo 31

Maturity requirement: "satisfactory ripeness". Turning colour is due to ripening and not a defect.



Photo 32

Maturity requirement: "satisfactory ripeness". If not soft, the deep red colour on the pistil end of a firm-ripe fruit is not a defect.



C. Classification

Persimmons are classified in three classes, as defined below.

(i) **“Extra” Class**

Persimmons in this class must be of superior quality. They must be characteristic of the variety.

The flesh must be sound.

The calyx must be intact.

The persimmons 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.

Interpretation: Changes in colouration as persimmons mature are not considered to be defects in colouring. “Extra” Class fruit in packages must be uniform in colouring.

A deep red colour on the pistil end of firm-ripe fruit is not a defect, provided it is firm.

Examples related to Class “Extra” are shown in **Photos 34-35**.



Photo 34

Classification: “Extra”
Class. Rojo Brillante.
Perfect fruit, typical
shape, intact calyx
attached

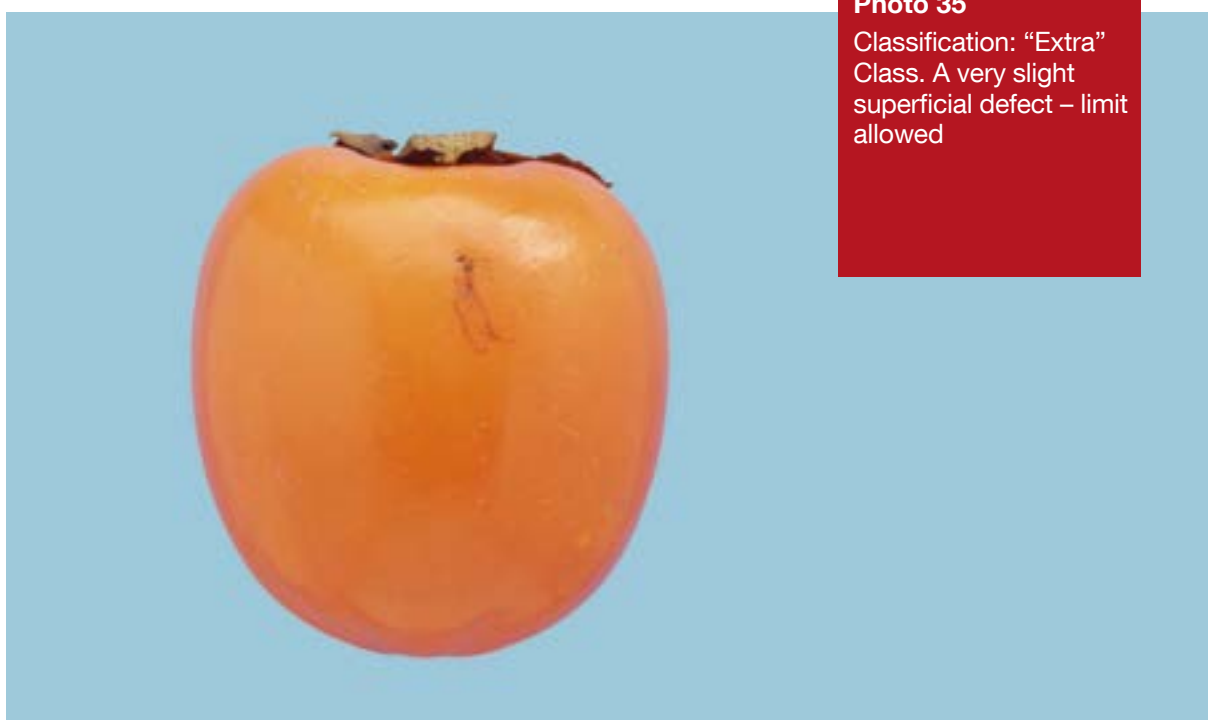


Photo 35

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

(ii) Class I

Persimmons in this class must be of good quality. They must be characteristic of the variety. The flesh must be sound.

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

Interpretation: Examples of Class I shape defects are shown in **Photos 36-37**.



Photo 36
Classification: "Class I, a slight defect in shape". Rojo Brillante: typical shape (left), a slight defect in shape (middle and right) – limit allowed



Photo 37
Classification: “Class I, a slight defect in shape”. Triumph: typical shape (left), a slight defect in shape (middle and right) – limit allowed

- slight defects in colouring, caused by the sun, not exceeding 1/8 of the total surface of the fruit

Interpretation: Changes in colouration as persimmons mature are not considered colour defects. Colour defects caused by the sun affecting the flesh are not allowed.

Examples of Class I defects in colouring are shown in **Photos 38-39**.



Photo 38
Classification: “Class I, slight defects in colouring”. Slight defects in colouring, caused by the sun, affecting 1/8 of the surface of the fruit – limit allowed



Photo 39

Classification: “Class I, slight defects in colouring”. Slight defects in colouring and spots, caused by the sun, affecting 1/8 of the surface of the fruit – limit allowed

- slight skin defects not exceeding

- the distance between the pistil end and the calyx in case of fine corky lines running down from the calyx area
- 1/16 of the total surface of the fruit for other skin defects

Interpretation: Examples of Class I slight skin defects are shown in **Photos 40-45**.

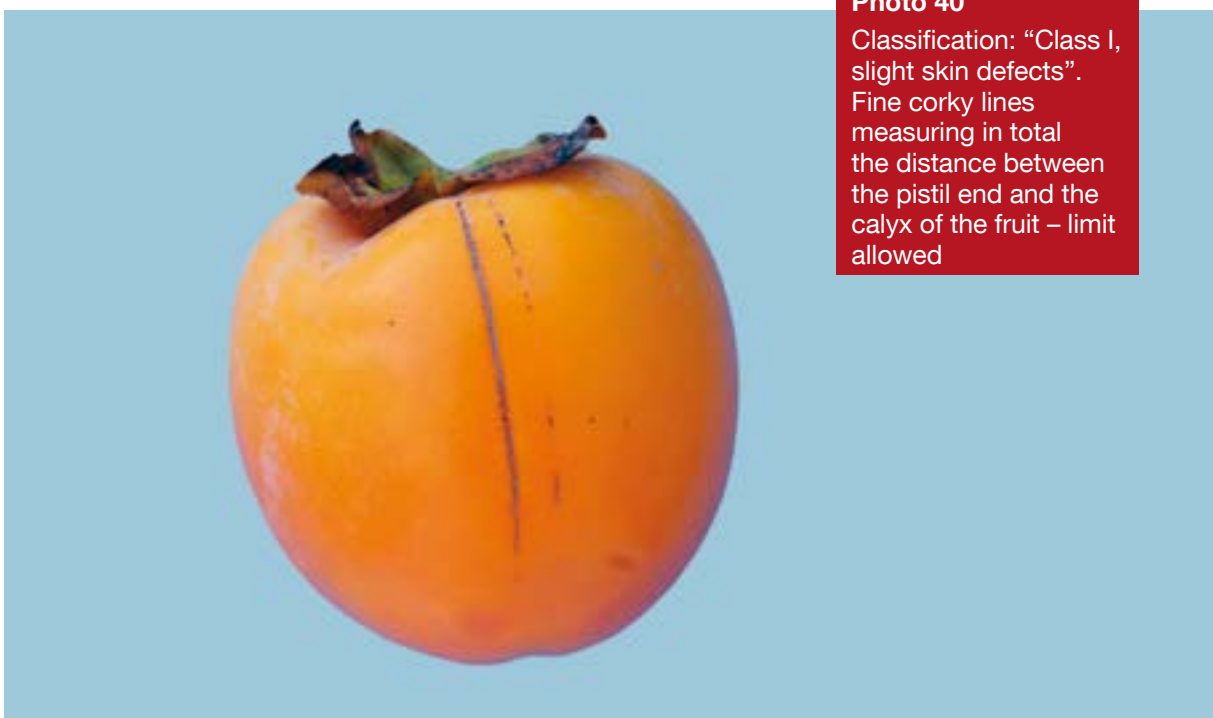


Photo 40

Classification: “Class I, slight skin defects”. Fine corky lines measuring in total the distance between the pistil end and the calyx of the fruit – limit allowed



Photo 41

Classification: "Class I, slight skin defects".
Slight healed cracks – limit allowed



Photo 42

Classification: "Class I, slight skin defects".
Rubbing affecting in total 1/16 of the surface of the fruit – limit allowed

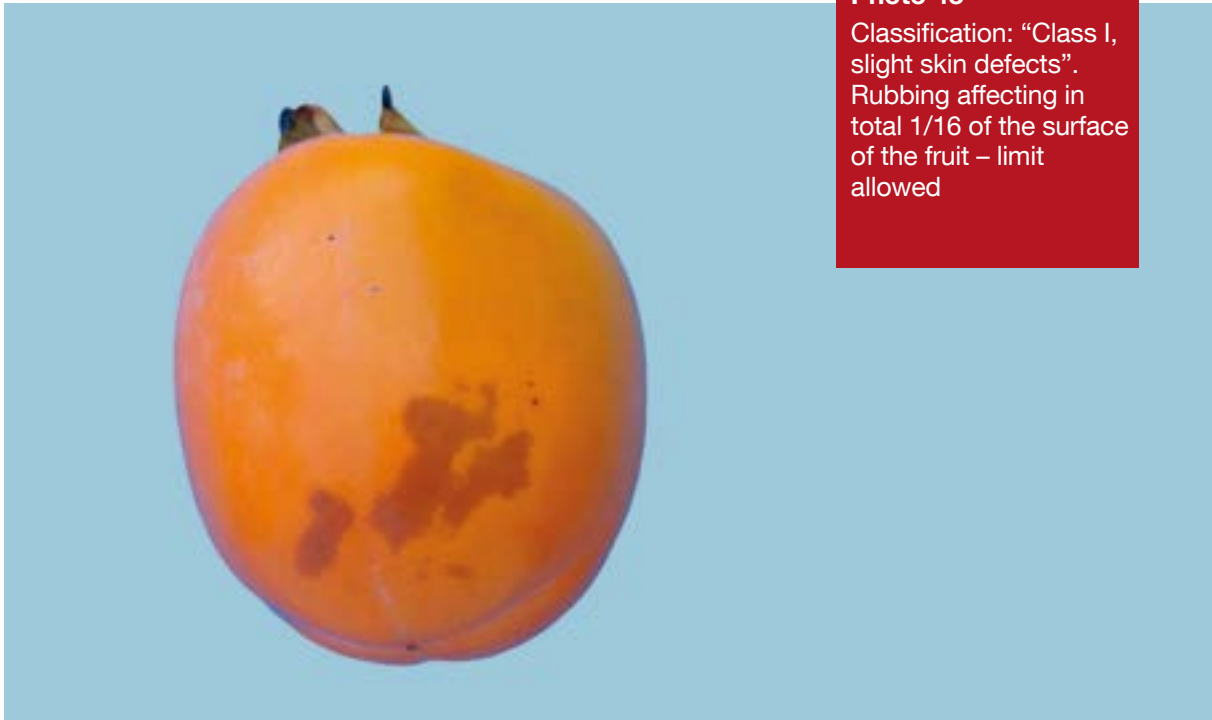


Photo 43

Classification: "Class I, slight skin defects".
Rubbing affecting in total 1/16 of the surface of the fruit – limit allowed



Photo 44

Classification: "Class I, slight skin defects".
Slight damage usually caused by scales – within the limit allowed



Photo 45

Classification: "Class I, slight skin defects". Slight damage usually caused by tortrix or leafroller moths (*Tortricidae spp.*) – within the limit allowed.

- slight bruising not exceeding 2 cm² cumulative in area

Interpretation: An example of Class I slight bruising is shown in **Photo 46**.



Photo 46

Classification: "Class I, slight bruising". Slight bruising affecting a cumulative area of 2 cm² – limit allowed

- slight damage to the calyx

Interpretation: An example of Class I slight damage to the calyx is shown in **Photo 47**.



Photo 47

Classification: "Class I, slight damage to the calyx". Half of the outer parts of the calyx missing – limit allowed

- slight internal discolouration not exceeding 1/3 of the total cross-section area of the fruit.

Interpretation: Internal discolouration may be caused by rough handling after the astringency has been artificially removed. The area affected by internal discolouration does not increase during marketing, but the discolouration may darken, which is not considered to increase the severity of the defect.

Examples of Class I internal discolouration of the flesh are shown in **Photos 48-50**.



Photo 48

Classification: "Class I, slight internal discolouration". Slight internal discolouration affecting 1/3 of the cross-section area – limit allowed

Photo 49

Classification: "Class I, slight internal discolouration". Slight internal discolouration under the skin affecting 1/3 of the surface – limit allowed



Photo 50

Classification: "Class I, slight internal discolouration". Flesh darkening around the seeds is not a defect



(iii) Class II

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

Interpretation: Persimmons in this class must be of reasonable quality and suitable for human consumption.

The flesh must be free from major defects.

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

- defects in shape

Interpretation: Examples of Class II shape defects are shown in **Photos 51-54**.



Photo 51
Classification: “Class II, defects in shape”. Rojo Brillante: typical shape (left), defect in shape (right) – limit allowed

Photo 52

Classification: "Class II, defects in shape".
Triumph: typical shape (left), defect in shape (middle and right) – limit allowed.



Photo 53

Classification: "Class II, defects in shape". Rojo Brillante: serious defect in shape and double fruit – not allowed



Photo 54

Classification: "Class II, defects in shape".
Triumph: serious defect in shape and double fruit – not allowed



- defects in colouring, caused by the sun, not exceeding 1/4 of the total surface of the fruit

Interpretation: Changes in colouration as persimmons mature are not considered colour defects. Colour defects caused by the sun are allowed, provided the flesh is not severely affected.

Examples of Class II defects in colouring caused by the sun are shown in **Photos 55-56**.

Photo 55

Classification: "Class II, defects in colouring caused by the sun".
Defects in colouring caused by the sun affecting 1/4 of the surface of the fruit – limit allowed





Photo 56

Classification: "Class II, defects in colouring caused by the sun". Defects in colouring and spots, caused by the sun affecting 1/4 of the surface of the fruit – limit allowed.

- skin defects not exceeding

- twice the distance between the pistil end and the calyx for corky lines running down from the calyx area
- 1/8 of the total surface of the fruit for other skin defects

Interpretation: Examples of Class II skin defects are shown in **Photos 57-65**.



Photo 57

Classification: "Class II, skin defects". Corky lines measuring in total twice the distance between the pistil end and the calyx of the fruit – limit allowed



Photo 58

Classification: “Class II, skin defects”. Corky lines measuring in total more than twice the distance between the pistil end and the calyx of the fruit – not allowed



Photo 59

Classification: “Class II, skin defects”. Healed cracks – limit allowed

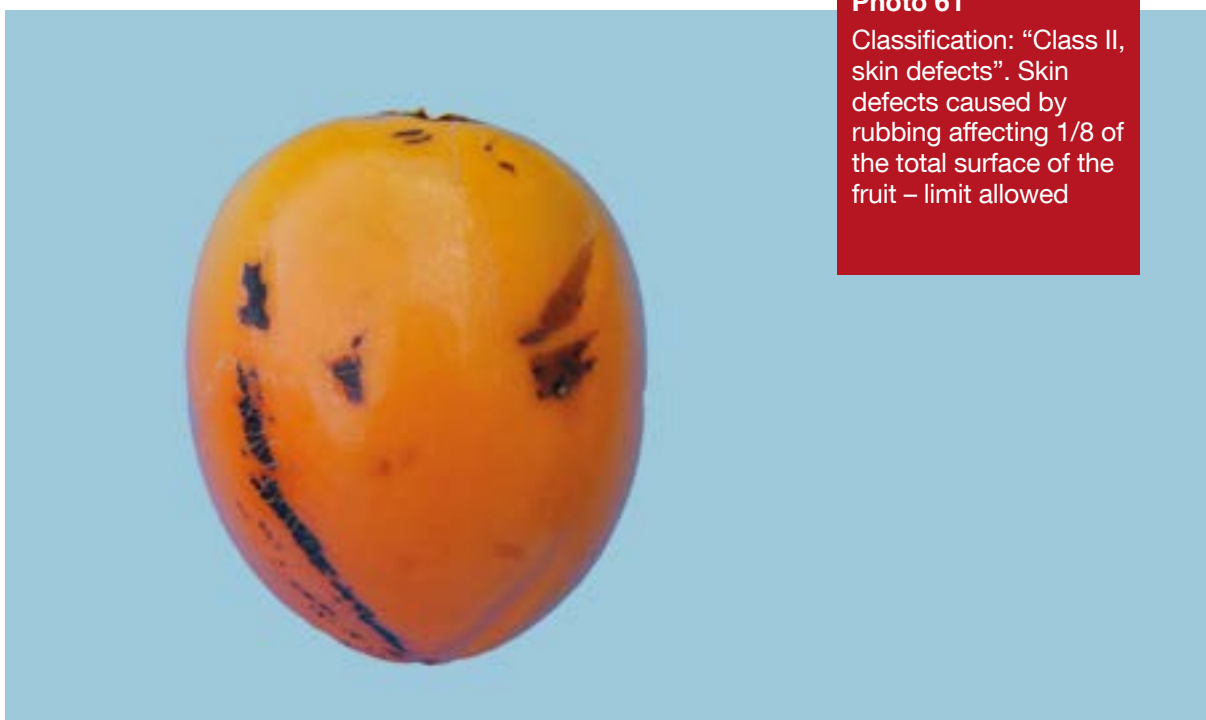
Photo 60

Classification: "Class II, skin defects". Serious healed cracks – not allowed



Photo 61

Classification: "Class II, skin defects". Skin defects caused by rubbing affecting 1/8 of the total surface of the fruit – limit allowed



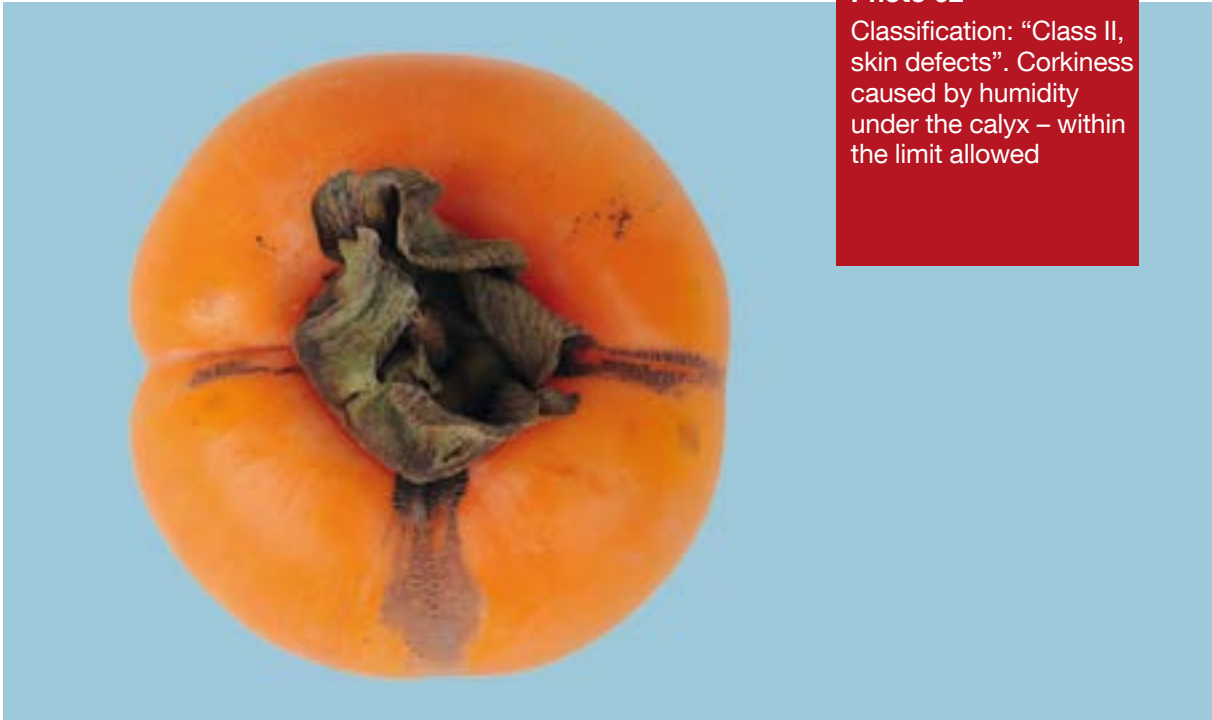


Photo 62

Classification: “Class II, skin defects”. Corkiness caused by humidity under the calyx – within the limit allowed

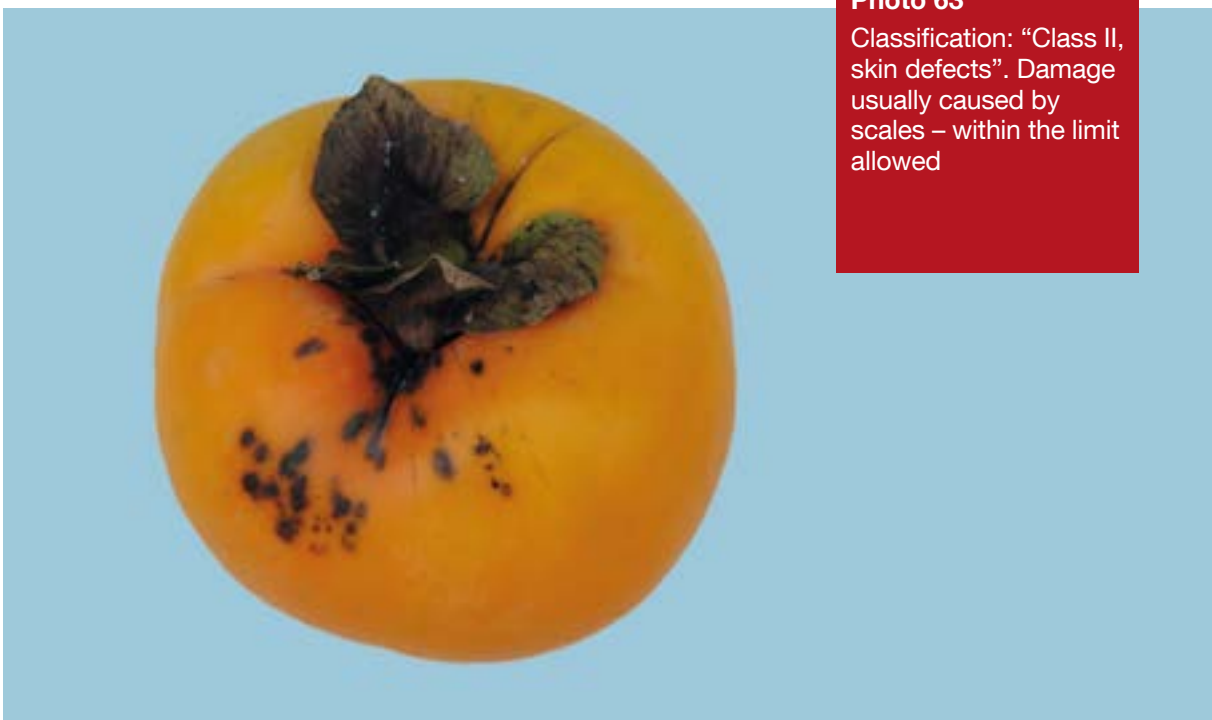


Photo 63

Classification: “Class II, skin defects”. Damage usually caused by scales – within the limit allowed



Photo 64

Classification: "Class II, skin defects". Corkiness usually caused by snout moths (*Cryptoblabes spp.*) – within the limit allowed

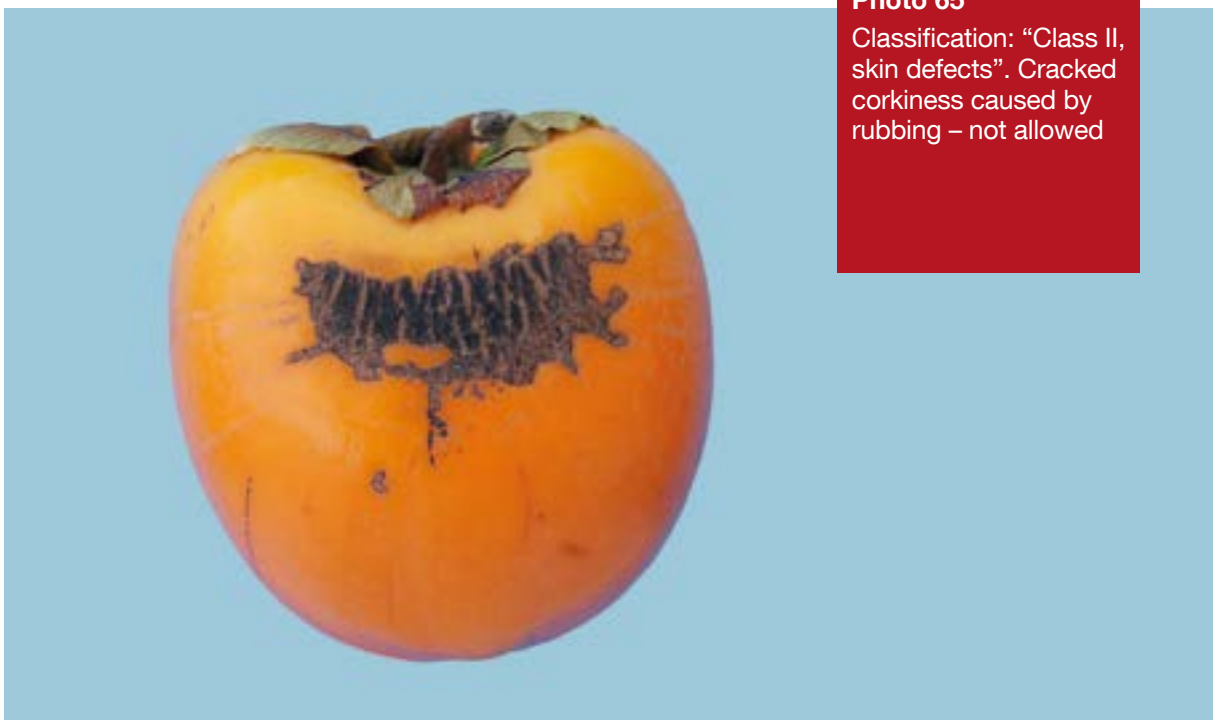


Photo 65

Classification: "Class II, skin defects". Cracked corkiness caused by rubbing – not allowed

- slight bruising not exceeding 3 cm² cumulative in area

Interpretation: An example of Class II bruising is shown in **Photo 66**.



Photo 66

Classification: “Class II, slight bruising not exceeding 3 cm² in area”. Slight bruising, the flesh is free of major defects – limit allowed

- damage to the calyx

Interpretation: An example of Class II damage to the calyx is shown in **Photo 67**.

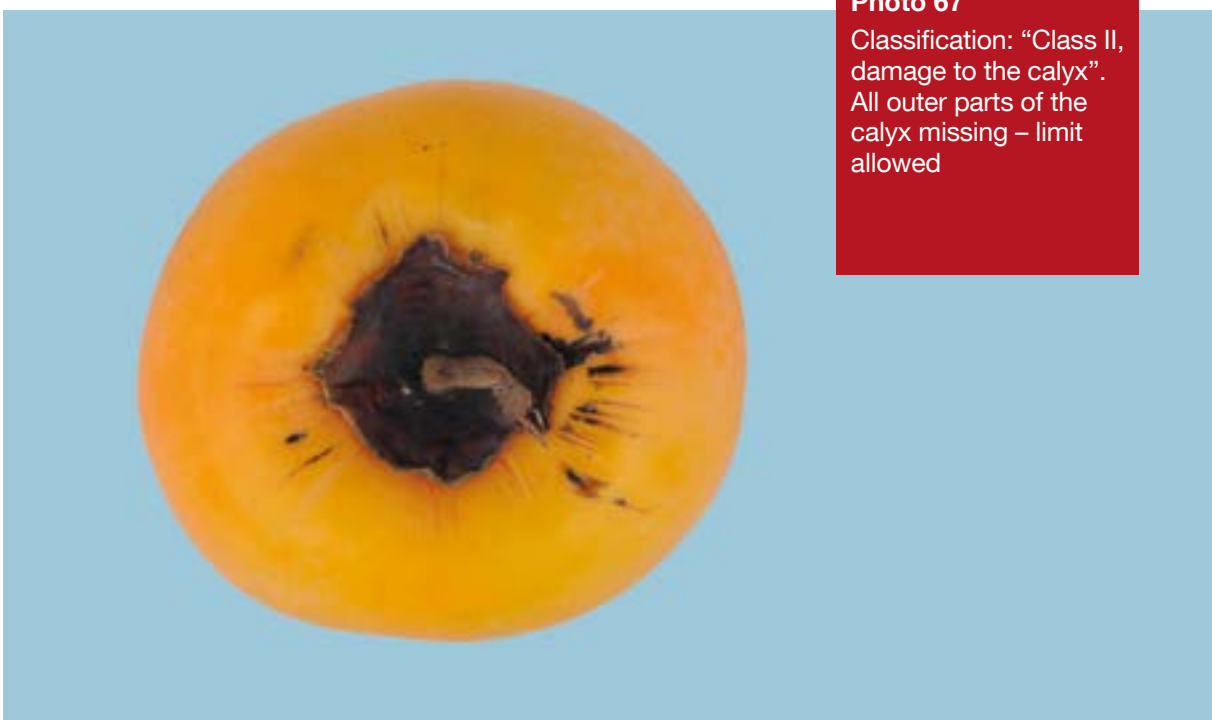


Photo 67

Classification: “Class II, damage to the calyx”. All outer parts of the calyx missing – limit allowed

slight internal discolouration not exceeding 1/2 of the total cross-section area of the fruit.

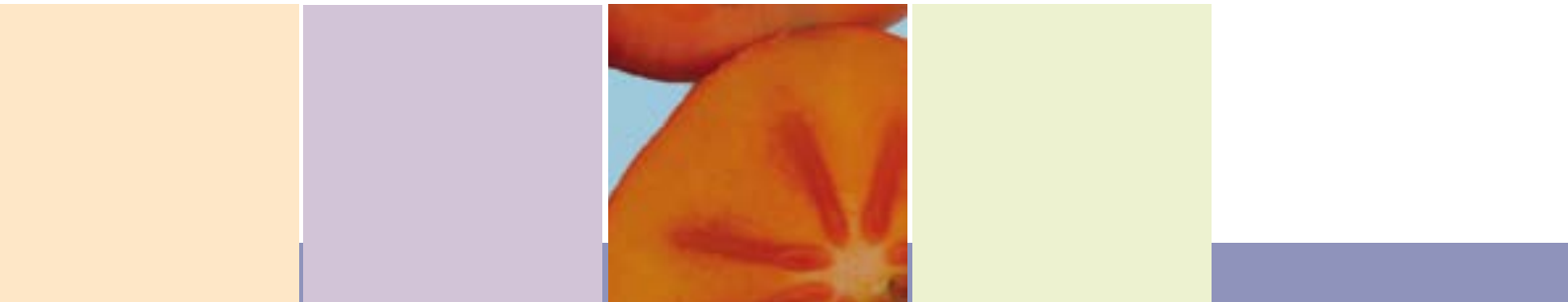
Interpretation: Internal discolouration may be caused by rough handling after the astringency has been artificially removed. The area affected by internal discolouration does not increase during marketing, but the discolouration may darken, which is not considered to increase the severity of the defect.

An example of Class II internal discolouration is shown in **Photo 68**.



Photo 68

Classification:
“Class II, slight internal
discolouration”. Internal
discolouration affecting
1/2 of the total cross-
section area of the fruit
– limit allowed



Provisions concerning Sizing

III. Provisions concerning Sizing

Size is determined by the maximum diameter of the equatorial section, by the weight of the fruit or by count of fruit per package.

To ensure uniformity in size, the range in size between produce in the same package shall be:

- (a) For persimmons sized by diameter: not exceeding 20 mm
- (b) For persimmons sized by weight: in accordance with the table below:

Weight in grams	Maximum permissible difference between fruit within the package in grams
50 - 90	20
85-130	25
125-190	35
180-230	50
>220	70

- (c) For persimmons sized by count: consistent with point (a).

Uniformity in size is compulsory for Classes “Extra” and I.

Interpretation: An example of sizing is shown in **Photo 69**.



Photo 69
Sizing. Checking the size by using a sizing ring.



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.

Conformity with tolerances should be determined using at least the operating rules for the conformity checks as set out in Annex II to the Council Decision Revising the OECD “Scheme” for the Application of International Standards for Fruit and Vegetables [C(2006)95]¹.

A. Quality tolerances

(i) “Extra” Class

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

Interpretation: The 5 per cent tolerance covers all shape, skin and colour defects allowed in Class I. The 0.5 per cent tolerance covers all shape, skin and colour defects, as well as bruises allowed in Class II.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of persimmons 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.

Interpretation: The 10 per cent tolerance covers all shape, skin and colour defects, as well as bruising allowed in Class II. The 1 per cent tolerance covers all defects not meeting the minimum requirements including those rendering the produce unfit for consumption.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of persimmons 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.

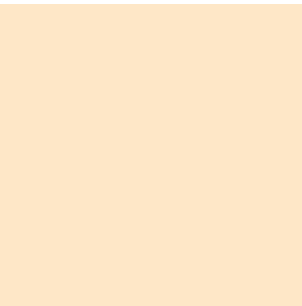
Interpretation: The 10 per cent tolerance covers all malformations, serious skin and colour defects as well as defects not meeting the minimum requirements but not affecting edibility such as slight damage, soiling, lack of freshness. The 2 per cent tolerance covers all defects not meeting the minimum requirements rendering the produce unfit for consumption.

B. Size tolerances

For all classes (if sized): A total tolerance of 10 per cent, by number or weight, of persimmons not satisfying the requirements as regards sizing is allowed.

Interpretation: The size tolerances are granted for produce below or above a set minimum as well as for produce deviating from the allowed and/or indicated size range.

¹ 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 persimmons of the same origin, variety, quality and size (if sized).

For the “Extra” Class, the uniformity requirement also applies to colouring.

Interpretation: Examples of uniform presentation are shown in **Photos 70-74**.

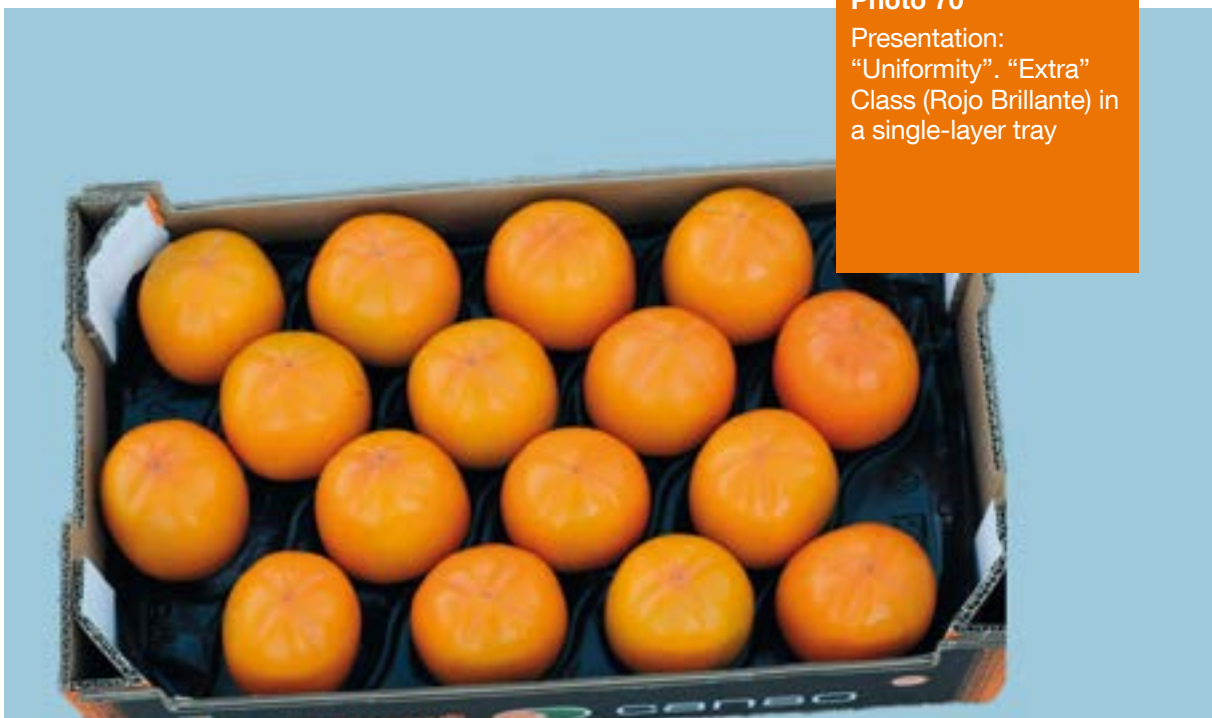


Photo 70

Presentation:
“Uniformity”. “Extra”
Class (Rojo Brillante) in
a single-layer tray



Photo 71

Presentation:
“Uniformity”. Classes I
and II – no uniformity in
colouring required



Photo 72

Presentation:
“Uniformity”. Class I
(Rojo Brillante) in a
single-layer tray



Photo 73

Presentation:
“Uniformity”. Class I
(Kaki Tipo) in sales
packages in a package



Photo 74

Presentation:
“Uniformity”. Class II
(Rojo Brillante) in a
single-layer tray

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

Interpretation: Presentation should not be misleading, i.e. concealing in the lower layers of the package produce inferior in quality and size (if sized) to that displayed and marked.

B. Packaging

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

Interpretation: Packages must be of such quality and strength as to protect the persimmons during transportation and handling.

Examples of packaging are shown in **Photos 75-78**.





Photo 76

Presentation:
“Packaging”.
Persimmons packed in
sales packages



Photo 77

Presentation:
“Packaging”. Sales
packages in a package



Photo 78

Presentation:
“Packaging”. Stickers
on the fruit allowed in
all classes

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.

Packages must be free of all foreign matter.

Interpretation: Clean materials should be used to protect the produce from foreign matter, such as leaves, sand or soil, which could cause a negative impact on the produce and its presentation. A visible lack of cleanliness in several packages is not allowed.



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: In the case of packed produce, 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 the case of re-used packages, all previous labels must be carefully removed and/or previous indications deleted.

Although these marking provisions do not apply to sales packages presented in packages, the indications given on both package and sales packages should not be misleading – if sales packages are marked or labelled.

Examples of marking are shown in **Photos 79-80**.

² These marking provisions do not apply to sales packages presented in packages.



Photo 79
Marking printed on a label. Name and address of the packer is replaced by an official code mark.

**Photo 80**

Marking printed on a package

A. Identification

Packer and/or dispatcher/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 authority³.

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.

B. Nature of produce

- “Persimmons” (kaki, kaki persimmon) if the contents are not visible from the outside
- Name of the variety.

The name of the variety can be replaced by a synonym. A trade name⁴ can only be given in addition to the variety or the synonym.

Interpretation: The following examples are given to explain the indications related to variety, synonym and trade name:

- “Kaki Tipo” is the name of the variety which can be replaced by its synonym “Loto di Romagna”
- “Sharon” or “Sharoni” are trade names which must be accompanied by the variety name “Triumph”
- “peRsimon®” is a registered trade mark for the variety “Rojo Brillante” which must be accompanied by the variety name “Rojo Brillante”.

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

C. Origin of produce

- **Country of origin⁵ and, optionally, district where grown, or national, regional or local place name.**

Interpretation: Marking must include the country of origin, i.e. the country in which the persimmons were grown (e.g. “Produce of Spain”, “Produce of Tajikistan” or “Produce of Italy”).

The full or commonly used name should be indicated. The full name would be, e.g. “Kingdom of the Netherlands” or “Federal Republic of Germany”. The common name would be “The Netherlands” or “Germany”. In case of “The Netherlands” it would be allowed to indicate “Holland” if this name of a province is commonly used for the “Netherlands”. Acronyms are not allowed with the exception of USA for the United States of America. Moreover, it is not allowed to indicate “French strawberries” to replace “origin: France”.

Optionally, district of origin in national, regional or local terms may also be shown.

D. Commercial specifications

- **Class**

Interpretation: Stating the class is compulsory.

- **Size (if sized) expressed as:**
 - **Minimum and maximum diameters or**
 - **Minimum and maximum weights or**
 - **Number of units.**
- **“Ready for consumption when firm” or equivalent denomination, where appropriate.**

E. Official control mark (optional)

Adopted 2015

⁵ The full or a commonly used name should be indicated.

Interpretation

Summary of classification:

Examples of classification of different defects are shown in **Photos 81-88**.



Photo 81:

Classification of defects in shape. Variety: Rojo Brillante. Left to right: “Extra” Class (typical for the variety), limit Class I, limit Class II, not allowed.



Photo 82:

Classification of defects in shape. Variety: Triumph. Left to right: : “Extra” Class (typical for the variety), limit Class I, limit Class II, not allowed.

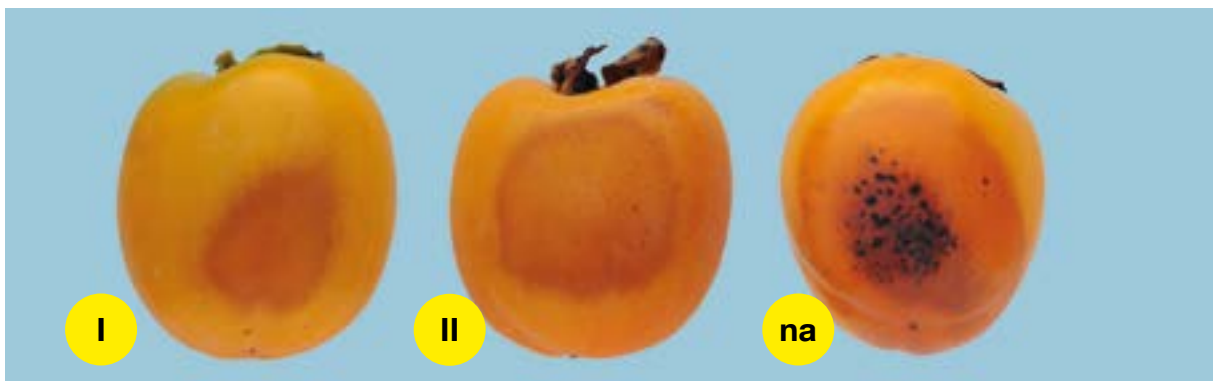


Photo 83:

Classification of defects in colouring. Left to right: limit Class I, limit Class II, not allowed.

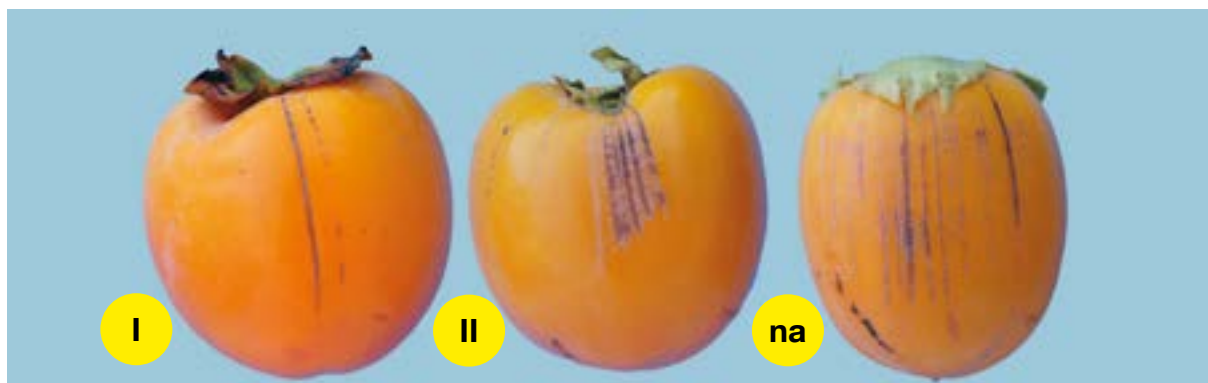


Photo 84:
Classification of skin defects (corky lines). Left to right: limit Class I, limit Class II, not allowed.



Photo 85:
Classification of skin defects (healed cracks). Left to right: limit Class I, limit Class II, not allowed.

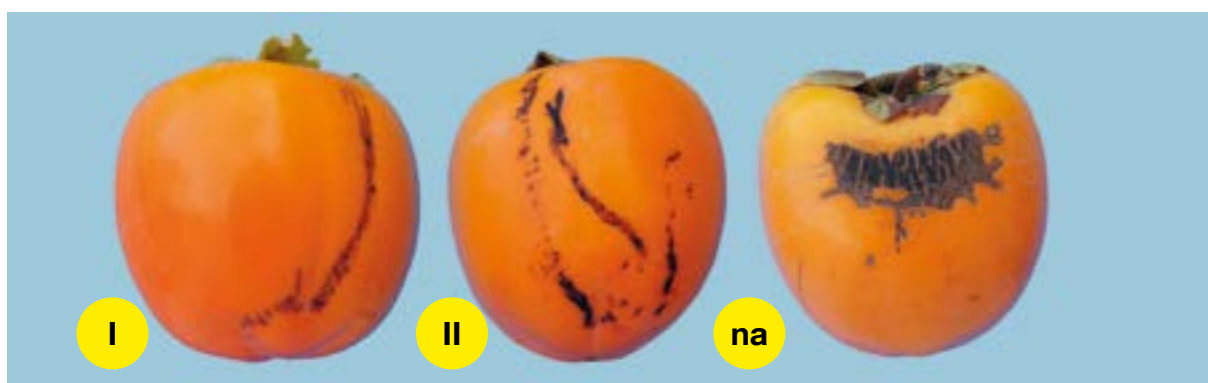


Photo 86:
Classification of skin defects (rubbing). Left to right: limit Class I, limit Class II, not allowed.



Photo 87:
Classification of bruising. Left to right: limit Class I, limit Class II, not allowed.

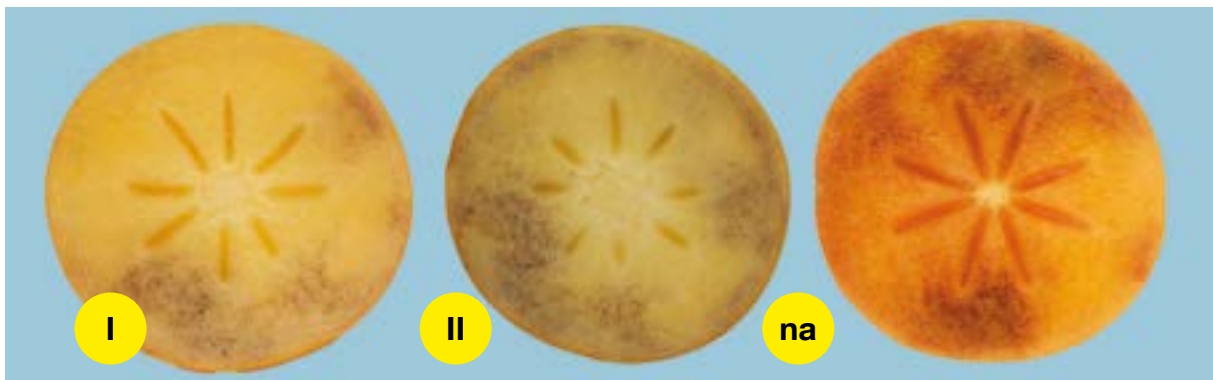


Photo 88:
Classification of internal discoloration. Left to right: limit Class I, limit Class II, not allowed.



UNECE
Standard
FFV-63

concerning the marketing and commercial
quality control of persimmons

UNECE Standard FFV-63

concerning the marketing and commercial quality control of **PERSIMMONS**

I. Definition of Produce

This standard applies to persimmons (kaki) of varieties (cultivars) grown from *Diospyros kaki* L. f. to be supplied fresh to the consumer, persimmons for industrial processing being excluded.

II. Provisions concerning Quality

The purpose of the standard is to define the quality requirements for persimmons 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 persimmons must be:

- Intact, with the calyx attached, which may be with or without peduncle and dry and brown
- 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 abnormal external moisture
- Free of any foreign smell and/or taste.

The development and condition of the persimmons 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 persimmons must be sufficiently developed, and display satisfactory ripeness. The development and state of maturity of the persimmons must be such as to enable them to continue their ripening process and to reach the degree of ripeness required in relation to the varietal characteristics.

At least the lower 1/3 of the fruit should be yellow or the colour of the fruit should be turning.

C. Classification

Persimmons are classified in three classes, as defined below.

(i) “Extra” Class

Persimmons in this class must be of superior quality. They must be characteristic of the variety.

The flesh must be sound.

The calyx must be intact.

The persimmons 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

Persimmons in this class must be of good quality. They must be characteristic of the variety.

The flesh must be sound.

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, caused by the sun, not exceeding 1/8 of the total surface of the fruit
- Slight skin defects not exceeding
 - the distance between the pistil end and the calyx in case of fine corky lines running down from the calyx area
 - 1/16 of the total surface of the fruit for other skin defects
 - Slight bruising not exceeding 2 cm² cumulative in area
 - Slight damage to the calyx
 - Slight internal discolouration not exceeding 1/3 of the total cross-section area of the fruit.
 - 1/8 of the total surface of the fruit for other skin defects
 - Slight bruising not exceeding 3 cm² cumulative in area

(iii) Class II

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

The flesh must be free from major defects.

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

- Defects in shape
- Defects in colouring, caused by the sun not exceeding 1/4 of the total surface of the fruit
- Skin defects not exceeding
 - twice the distance between the pistil end and the calyx in case of corky lines running down from the calyx area
 - 1/8 of the total surface of the fruit for other skin defects

- Slight bruising not exceeding 3 cm² cumulative in area
- Damage to the calyx
- Slight internal discolouration not exceeding 1/2 of the total cross-section area of the fruit.

III. Provisions concerning Sizing

Size is determined by the maximum diameter of the equatorial section, by the weight of the fruit or by count of fruit per package.

To ensure uniformity in size, the range in size between produce in the same package shall be:

- (a) For persimmons sized by diameter: not exceeding 20 mm
- (b) For persimmons sized by weight: in accordance with the table below:

Weight in grams	Maximum permissible difference between fruit within the package in grams
50 - 90	20
85-130	25
125-190	35
180-230	50
>220	70

- (c) For persimmons sized by count: consistent with point (a).

Uniformity in size is compulsory for Classes “Extra” and I.

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 persimmons 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 persimmons 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 persimmons 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 persimmons 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 persimmons of the same origin, variety, quality and size (if sized).

For the “Extra” Class, the uniformity requirement also applies to colouring.

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

B. Packaging

The persimmons 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.

Packages must be free of all foreign matter.

VI. Provisions concerning Marking

Each package¹ must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

¹ These marking provisions do not apply to sales packages presented in packages.

A. Identification

Packer and/or dispatcher/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 authority².

B. Nature of produce

- “Persimmons” (kaki, kaki persimmon) if the contents are not visible from the outside
- Name of the variety

The name of the variety can be replaced by a synonym. A trade name³ can only be given in addition to the variety or the synonym.

C. Origin of produce

- Country of origin⁴ and, optionally, district where grown, or national, regional or local place name.

D. Commercial specifications

- Class
- Size (if sized) expressed as:
 - Minimum and maximum diameters or
 - Minimum and maximum weights or
 - Number of units
- “Ready for consumption when firm” or equivalent denomination, where appropriate.

E. Official control mark (optional)

Adopted 2015

- - - - -.

The UNECE Standard for Persimmons has led to an explanatory brochure published by the UNECE,

- - - - -.

² 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.

³ A trade name can be a trademark for which protection has been sought or obtained or any other commercial denomination.

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