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Specialized Section on Standardization of
Fresh Fruit and Vegetables

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REPORT OF THE FORTY-NINTH SESSION

Addendum 5

UNECE Standard for Kiwifruit

Note by the secretariat: This document contains the text recommended by the Specialized Section for adoption as a revised UNECE Standard for Kiwifruit. Additions to the existing text have been underlined and deletions have been marked with strike-out.

UNECE STANDARD FFV-46
concerning the marketing and commercial
quality control of

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

I. DEFINITION OF PRODUCE

This standard applies to kiwifruit (also known as *actinidia* or *kiwis*) of varieties (cultivars) grown from *Actinidia chinensis* ~~(Planch)~~ and ~~or~~ *Actinidia deliciosa* (A. Chev., C.F. Liang and A.R. Ferguson) to be supplied fresh to the consumer, kiwifruit for industrial processing being excluded.

II. PROVISIONS CONCERNING QUALITY

The purpose of the standard is to define the quality requirements of kiwifruit, at the export control stage, after preparation and packaging.

A. Minimum requirements

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

- intact (but free of peduncle)
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free from pests
- practically free from damage caused by pests
- adequately firm; not soft, shrivelled or water-soaked
- well formed, double/multiple fruit being excluded
- free of abnormal external moisture
- free of any foreign smell and/or taste.

The kiwifruit must be sufficiently developed and display satisfactory ripeness.¹

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

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

¹ In order to satisfy this requirement, the fruit when harvested must have attained a degree of ripeness of at least 6.2 per cent assessed by the Brix test.

B. Classification

Kiwifruit are classified in three classes defined below:

(i) ***"Extra" Class***

Kiwifruit in this class must be of superior quality. They must be well developed and have all the characteristics and the colouring typical of the variety.

They must be free from defects with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

The ratio of the minimum/maximum diameters of the fruit measured at the equatorial section must be 0.8 or greater.

(ii) ***Class I***

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

They must be firm and the flesh must be perfectly 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 (but free of swelling or malformations)
- a slight defect in colouring
- superficial skin defects, provided the total area affected does not exceed 1 cm²
- small "Hayward mark" like longitudinal lines and without protuberance.

The ratio of the minimum/maximum diameters of the fruit measured at the equatorial section must be 0.7 or greater.

(iii) ***Class II***

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

The fruit must be reasonably firm and the flesh should not show any serious defects.

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

- defects in shape
- defects in colouring
- skin defects such as small healed cuts or scarred/grazed tissue, provided that the total area affected does not exceed 2 cm²

- several more pronounced "Hayward marks" with a slight protuberance
- slight bruising.

The ratio of the minimum/maximum diameters of the fruit measured at the equatorial section must be 0.6 or greater.

III. PROVISIONS CONCERNING SIZING

Size is determined by the weight of the fruit.

The minimum weight for "Extra" Class is 90 g for Class I is 70 g and, for Class II is 65g.

The difference in weight between the largest and the smallest fruit in each package must not exceed:

- 10 ~~15~~ g for fruit of weight up to 85 g
- 15 ~~20~~ g for fruit weighing between 85 g and 120 g
- 20 ~~30~~ g for fruit weighing 120 g or more.

IV. PROVISIONS CONCERNING TOLERANCES

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

A. Quality tolerances

- (i) ***"Extra" Class***
5 per cent by number or weight of kiwifruit not satisfying the requirements of the class but meeting those of Class I or, exceptionally, coming within the tolerances of that class.
- (ii) ***Class I***
10 per cent by number or weight of kiwifruit not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.
- (iii) ***Class II***
10 per cent by number or weight of kiwifruit satisfying neither the requirements of the class, nor the minimum requirements, with the exception of produce affected by rotting, severe bruising or any other deterioration rendering it unfit for consumption.

B. Size Tolerances

For all classes: 10 per cent by number or weight of kiwifruit not satisfying the requirements as regards the minimum weight and/or the size range specified.

However, the fruit must be of a size immediately below or above the size indicated or, in the case of the smallest size, they must not weigh less than 85 g in "Extra" Class, 67 g in Class I and, 62 g in Class II.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

The contents of each package must be uniform and contain only kiwifruit of the same origin, variety, quality and size.

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

B. Packaging

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

The materials used inside the package must be new, clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed provided the printing or labelling has been done with non-toxic ink or glue.

Packages must be free of all foreign matter.

In "Extra" Class the fruit must be presented separately from one another, and be regularly arranged on one layer.

VI. PROVISIONS CONCERNING MARKING

Each package² must bear the following particulars in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

A. Identification

Packer)	Name and address or
and/or)	officially issued or
Dispatcher)	accepted code mark. ³

B. Nature of produce

- "Kiwifruit" and/or "Actinidia" if the contents are not visible from the outside
- Name of the variety (optional).

² Package units of produce prepacked for direct sale to the consumer shall not be subject to these marking provisions but shall conform to the national requirements. However, the markings referred to shall in any event be shown on the transport packaging containing such package units.

³ The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference "packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark.

C. Origin of produce

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

D. Commercial specifications

- Class
- Size expressed by the minimum and maximum weight of the fruit, if not packed in rows
- Number of fruits if packed in rows.

E. Official control mark (optional)

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This UN/ECE Standard for Kiwifruit

has led to an explanatory brochure published by the OECD Scheme