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ECONOMIC COMMISSION FOR EUROPE

COMMITTEE FOR TRADE, INDUSTRY AND  
ENTERPRISE DEVELOPMENT

Working Party on Standardization of  
Perishable Produce and Quality Development

Specialized Section on Co-ordination of  
Standardization of Fresh Fruit and Vegetables  
Forty-fifth session, 26 to 29 October 1999, Geneva

Item 3 (e) of the Provisional Agenda

PROPOSALS TO REVISE UN/ECE STANDARDS  
KIWIFRUIT

Proposal transmitted by New Zealand

**Background:** An informal working group composed of Chile, Germany, Italy, the United States and New Zealand as rapporteur was charged with drawing up proposals for a revision of this standard.

**UN/ECE Working Group on Kiwifruit**  
**Proposals to amend the UN/ECE Standard for Kiwifruit (FFV- 46)**

(Amendments underlined, deletions ~~crossed out~~)

**I. DEFINITION OF PRODUCE**

read:

.... grown from *Actinidia chinensis* (~~Planch.~~) Planch. ~~or~~ and *Actinidia deliciosa* (A. Chev., C.F. Liang and A.R. Ferguson) to be supplied ....

**II. PROVISIONS CONCERNING QUALITY**

**A. Minimum requirements**

Amend the 2nd paragraph to read:

The kiwifruit must be sufficiently developed and display satisfactory ripeness. <sup>+</sup> ripeness of 6.2 % at harvest and 9,5 % at any point in the distribution chain assessed by the Brix test.

Delete footnote 1.

**B. Classification**

(iii) Class II

3rd paragraph read:

.....the quality, the keeping quality and presentation ~~in the package~~.

(Motivation: see Standard Layout)

**IV. PROVISIONS CONCERNING TOLERANCES**

**A. Quality tolerances**

ii) Class II

amend the second part of the sentence to read:

....., with the exception of produce affected by rotting, severe bruising or any other deterioration rendering it unfit for consumption.

## **V. PROVISIONS CONCERNING PRESENTATION**

### **B. Packaging**

Last sentence read:

... and be regularly arranged ~~on~~ in one layer.

## **VI. PROVISIONS CONCERNING MARKING**

### **B. Nature of produce**

1st indent read:

– “Kiwifruit” ~~and/or~~ or “Actinidia” if the contents are not visible from the outside

2nd indent read:

– Name of the variety (~~optional~~).

### **D. Commercial specifications**

read:

– Class

– Size expressed by

– the minimum and maximum weight of the fruit if not packed in rows

– number of fruits if packed in rows.

## **ADDITIONAL INFORMATIONAL**

Since the original grade standard was developed for kiwifruit in the late 1980's, more experience has been gained in measuring the maturity of kiwifruit and in measuring variation in the taste of the fruit. In addition, there is a major new variety out of New Zealand with a different shape, necessitating some additions to the current grade standard.

## **MATURITY**

Fruit under different growing conditions and in different seasons exhibit different aspects of maturity, even though the fruit have reached the harvest standard of 6.2 Brix. Under warmer and drier conditions, a Brix level of 6.2 may be attained but the seeds are still white or brown, not black as in mature fruit.

Under moist conditions, the Brix level may be slow to rise, and may even fall if rain occurs but the fruit is no less “mature”. New Zealand have also gained much experience in examining how the maximum potential Brix of the fruit at eating ripeness can vary depending on where the fruit is on the vine, as well as varying between growing regions.

For ten years now, New Zealand has been undertaking sensory evaluation of the fruit to determine the limits at which fruit has a low level of acceptability to consumers and the level above which it has a high level of acceptability. The results tie in well with the dry matter content of the fruit and tests were developed in New Zealand to measure maturity based on the following criteria:

- Minimum dry matter content of fruit
- All seeds black
- A minimum of 140 days from full bloom to harvest
- Measurement of Brix level at harvest

The above was discussed by the International Kiwifruit Organisation’s sub-committee on grade standards at a meeting in Chile in January 1999. It was agreed that the members of the sub-committee, United States, France, Italy and Chile, would trial the new criteria for at least one season to assess the suitability of the New Zealand developed criteria for their growing conditions. New Zealand has supplied full details of the testing methods and the criteria used to clear fruit for harvest to enable those countries to assess the new methodology.

It is appreciated that the above would be a useful production standard but it could not be used by border control services. Discussions with some UN/ECE members has led to a suggestion that a minimum Brix level of 9.5 at any point in the distribution chain could be a useful addition to the kiwifruit standard to improve the quality of kiwifruit as presented to consumers.

## **STANDARD FOR HORT16A**

The kiwifruit grade standard covers both *Actinidia deliciosa* and *chinensis* so a new standard is not required. There will be minimal alterations to the main body of the existing standard to cover defects unique to this variety. Photographs of these will be presented at the October meeting.