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NEW UNECE STANDARDS

FRESH CHILLI PEPPERS

Document submitted by Mexico

This document has been prepared following the decision by the Working Party to initiate work on a new Standard for Fresh Chilli Peppers (ECE/TRADE/C/WP.7/2007/27, para. 27).

UNECE STANDARD FFV-

concerning the marketing and commercial quality control of

FRESH CHILLI (aji, pepper)

I. DEFINITION OF PRODUCE

This Standard applies to chilli (*Capsicum* spp.) of varieties ancho, chilaca, de árbol, habanero, jalapeño, manzano and serrano grown from *Capsicum annuum* and *Capsicum frutescens*, to be supplied fresh to the consumer, peppers for industrial processing being excluded.

II. PROVISIONS CONCERNING QUALITY

The purpose of the Standard is to define the quality requirements of these peppers 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 “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 fresh chilli must be:

- of the form, colour, flavour, heat¹ and smell characteristic of the variety
- intact
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- practically free from pests
- free from damage caused by pests affecting the flesh
- free of abnormal external moisture
- free of any foreign smell and/or taste

¹ See annex I: Scoville units to measure heat of different varieties of fresh peppers.

- with or without stem, cut at the optimal ripeness
- free from any defects: mechanical, entomological, microbiological, meteorological or genetic-physiological².

The development and condition of the fresh chilli peppers 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 produce must be sufficiently developed and display satisfactory ripeness (shiny, firm and with texture proper of the variety).

C. Classification

Fresh chilli peppers are classified in three classes, as defined below:

(i) "Extra" Class

Fresh chilli 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.

They must be free from:

- biological defects at the moment of packaging
- physical-mechanical defects when they do not affect more than 0.5% of the surface of the fruit
- any climate-related defects
- any morphological alterations.

(ii) Class I

Fresh chilli 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:

² See annex II: Description of defects by origin.

- biological defects when they do not affect more than 0.5% of the surface of the fruit
- physical-mechanical defects when they affect more than 0.5% and up to 1.0% of the surface
- climate-related defects when they do not affect more than 0.5% of the surface of the fruit
- morphological alterations when they do not exceed 3.0% of the surface of the fruit.

(iii) Class II

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

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

- biological defects when they affect more than 0.5% and up to 1.0% of the surface of the fruit
- physical-mechanical defects when they affect more than 1.0% and up to 3.0% of the surface
- climate-related defects when they affect more than 0.5% and up to 1.0% of the surface of the fruit
- morphological alterations when they exceed 3.0% and up to 6.0% of the surface of the fruit.

III. PROVISIONS CONCERNING SIZING

Size, for each variety, is determined by diameter, length and weight, as set out in table 1.

Table 1. Size classification of fresh chilli peppers by variety
(Length and diameter in centimetres; weight in grams)

ANCHO (poblano/mulato)				
	Small	Medium	Large	Extra large
Length	< 10.0	10.0 – 11.9	12.0 -14.0	> 14
Diameter	< 6.0	6.0 - 6.9	7.0 – 8.0	> 8
Weight	80.0 – 110.0	110.0 -129.9	130 - 150	> 150
CHILACA				
	Small	Medium	Large	Extra large
Length	12.0 -14.9	15.0 – 24.9	25 – 30	> 30
Diameter	2.0 – 4.0	2.0 – 4.0	2.0 – 4.0	2.0 – 4.0
Weight	35.0 – 49.0	50.0 – 74.9	75.0 – 100.0	> 100
DE ÁRBOL (serranito, criollo soledad)				
	Small	Medium	Large	Extra large
Length	< 6	6 – 7.9	8.0 – 10.0	> 10
Diameter	0.7 - 1.0	0.7 - 1.0	0.7 - 1.0	0.7 - 1.0
Weight	4.0	5.0	6.0	7.0
HABANERO				
	Small	Medium	Large	Extra large
Length	< 2	2 – 3.9	≥ 4	Not applicable
Diameter	---	---	---	
Weight	---	---	---	
JALAPEÑO				
	Small	Medium	Large	Extra large
Length	3.0 – 4.9	5.0 – 7.5	7.6 – 9.0	> 9.0
Diameter	2.5 – 2.9	3.0 – 4.5	3.0 – 4.5	3.0 – 4.5
Weight	< 15	15.1 – 24.9	25 – 35	< 35
MANZANO				
	Small	Medium	Large	Extra large
Length	< 6	6 - 8.5	> 8.5	Not applicable
Diameter	3.8 - 4.5	4.6 – 5.5	> 5.5	
Weight	< 36	36 – 56	> 56	
SERRANO				
	Small	Medium	Large	Extra large
Length	3.5 – 5.0	5.0 – 7.5	8.0 – 10.0	Not applicable
Diameter	1.3 – 1.5	1.5 – 2.0	1.5 – 2.2	
Weight	5 – 7	6 – 9	8 – 14	

IV. PROVISIONS CONCERNING TOLERANCES

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

A. Quality tolerances

Tolerances for defects allowed for each packing unit or lot of fresh chilli peppers presented in bulk are specified in table 2.

Table 2. Quality tolerances per lot or packing unit of fresh peppers
(Per cent)

	Loading point	Point of destination
Critical	4	5
Major	6	7
Minor	10	12
Cumulative	10	12
Rotting	0	0.5

B. Size tolerances

For “Extra” Class: 5 per cent by lot or packaging unit of fresh chilli peppers not satisfying the requirements for sizing.

For Class I: 10 per cent by lot or packaging unit not satisfying the requirements for sizing.

For Class II: 15 per cent by lot or packaging unit not satisfying the requirements for sizing.

In fresh chilli peppers, the percentage that does not correspond to the declared designation will be evaluated by weight.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

The contents of each package (or lot for produce presented in bulk) must be uniform and contain only fresh chilli peppers of the same origin, quality and size.

The visible part of the contents of the package (or lot for produce presented in bulk) must be representative of the entire contents.

B. Packaging

Fresh chilli 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 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 on the produce shall be such that, when removed, they neither leave visible traces of glue nor lead to skin defects.

Packages (or lots for produce presented in bulk) must be free of all foreign matter.

VI. PROVISIONS CONCERNING MARKING

Each package³ 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 physical address (e.g. street/city/region/postal code and,
and/or) if different from the country of origin, the country) or
Dispatcher) a code mark officially recognized by the national authority.⁴

B. Nature of produce

- Name of the produce if the contents are not visible from the outside
- Name of the variety and/or commercial type.

C. Origin of produce

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

D. Commercial specifications

- Class
- Size
- Variety.

E. Official control mark (optional)

For fresh chilli peppers transported in bulk (direct loading into a transport vehicle), these particulars must appear on a document accompanying the goods, and be attached in a visible position inside the transport vehicle.

Adopted ...

³ According to the Geneva Protocol, footnote 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".

⁴ 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.

Annex I. Scoville units for different varieties of fresh chilli peppers.

Variety	Heat (Scoville units)
Ancho	1 000 – 1 500
Chilaca	1 000 - 1 500
De árbol	15 000 – 30 000
Habanero	100 000 – 350 000
Jalapeño	2 500 – 5 000
Manzano	30 000 – 60 000
Serrano	5 000 – 15 000

Annex II. Description of defects by their origin

Defect group	Description
Mechanical	<ul style="list-style-type: none"> - <i>Mechanical cracks</i>: fissures on the fruit's pericarp caused by handling or mechanical actions. - <i>Scratches</i>: lesions on the pericarp of the fruit, caused by rubbing. - <i>Bruises</i>: softening or spots in the pericarp or in the skin caused by knocks or compressions.
Entomological and biological	<ul style="list-style-type: none"> - <i>Scars</i>: caused by some pests, e.g. thrips, that scratch the surface of the fruit. - <i>Fractures</i>: caused by some worms that feed from the fruit's pericarp. - <i>Stings and/or punctures</i>: wounds that can be more or less deep, carried out by pests and birds, mainly.
Microbiological	<ul style="list-style-type: none"> - <i>Spots and dots of rotting caused by fungi, bacteria or viruses</i>. One of the most common diseases is anthracnose, a fungal disease that in attacking the fruits causes typical brown or sometimes darker necrotic lesions that can cover wide surfaces. It is caused by fungi belonging to the genera <i>Colletotrichum (Glomerella)</i>, <i>Gloeosporium</i>, <i>Gnomonia</i>, <i>Marssonina</i>, <i>Mycosphaerella</i>, <i>Neofabrae</i> and <i>Pseudopeziza</i>. - <i>Rot of the peduncular extreme</i>: rot caused by fungi or bacteria that attack the fruits in the base of the peduncle and, in many cases, may penetrate the flesh and the seeds. - <i>Fumagina</i>: caused by the fixation, in film form, of the fungus mycelium <i>Capnodium</i> sp., which forms spots with the appearance of layers of soot. It affects the surface of the fruit.
Meteorological and climate-related	<ul style="list-style-type: none"> - <i>Sunburns</i>: the change of colour of some areas in the surface of the fruits, caused by excessive exposure to the sun.
Genetic-physiological	<ul style="list-style-type: none"> - <i>Deformations</i>: alterations of the fruit's form in relation to the ones corresponding to the species or variety. - <i>Physiological cracks</i>: fissures on the pericarp of the fruit, caused by the effect of the ripeness process. - <i>Softening</i>: the softening of the fruit mainly caused by the ripening process or because the fruit was harvested "tender", before it reached physiological maturity.
