# **UNECE STANDARD DDP-24**

concerning the marketing and commercial quality control of

# WHOLE DRIED CHILLI PEPPERS

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#### NOTE

#### **Working Party on Agricultural Quality Standards**

The commercial quality standards developed by the United Nations Economic Commission for Europe (UNECE) Working Party on Agricultural Quality Standards help facilitate international trade, encourage high-quality production, improve profitability and protect consumer interests. UNECE standards are used by Governments, producers, traders, importers and exporters, and other 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.

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The new Standard for Whole Dried Chilli Peppers is based on document ECE/TRADE/C/WP.7/2013/24, reviewed and adopted by the Working Party at its sixty-ninth session.

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### **UNECE Standard DDP-24**

### concerning the marketing and commercial quality control of

# Whole Dried Chilli Peppers

# I. Definition of produce

This Standard applies to whole dried chilli peppers <sup>1</sup> of varieties (cultivars) grown from *Capsicum annuum* L., C. *baccatum*, *C. chinense*, *C. frutescens* and *C. pubescens*, intended for direct consumption or for food when intended to be mixed with other products for direct consumption without further processing. This standard does not apply to whole dried chilli peppers for industrial processing.

# II. Provisions concerning quality

The purpose of the standard is to define the quality requirements of whole dried chilli peppers at the export-control stage, after preparation and packaging.

However, if applied at stages following export, the holder/seller shall be responsible for observing the requirements of the standard. The holder/seller of products not in conformity with this standard may not display such products or offer them for sale, or deliver or market them in any other manner.

# A. Minimum requirements <sup>2</sup>

In all classes, subject to the special provisions for each class and the tolerances allowed, the whole dried chilli peppers must display the following characteristics:

- intact; however, slight superficial damage is not considered as a defect; peduncle and calyx may be missing but flesh at the calyx area must be intact, if present peduncle and calyx 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;
- · sufficiently developed;
- free from living pests whatever their stage of development;
- free from damage caused by pests, including the presence of dead insects and/or mites, their debris or excreta;
- free from blemishes, areas of discolouration or spread stains in pronounced contrast with the rest of the produce affecting in aggregate not more than 25 per cent of the surface of the produce;

-

Whole dried chilli peppers presenting a minimum pungency of 900 Scoville index; for levels of pungency, see annex.

Definitions of terms and defects are listed in annex III of the Standard Layout – Recommended terms and definition of defects for standards of dry (Inshell Nuts and Nut Kernels) and dried produce <a href="https://www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP\_e.pdf">www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP\_e.pdf</a>

- · free from mould;
- free of abnormal external moisture;
- free of foreign smell and/or taste.

The condition of the whole dried 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.** Moisture content <sup>3</sup>

Whole dried chilli peppers should have a maximum moisture content in accordance with the following table:

Commercial type		Maximum moisture content in per cent (m/m)
Guajillo, and other commercial type similar flesh texture	Pasilla es having	13.5
Ancho, and other commercial type similar flesh texture	Mulato es having	12.5
Puya and other commercial type similar flesh texture	es having	10.0
De and other commercial type similar flesh texture	árbol es having	9.0

### C. Classification

In accordance with the defects allowed in section "IV. Provisions concerning tolerances", whole dried chilli peppers are classified into the following classes:

"Extra" Class, Class I and Class II.

The defects allowed must not affect the general appearance of the produce as regards quality, keeping quality and presentation in the package.

### D. Colour

Colour classification for whole dried chilli peppers is mandatory for the commercial types in accordance with the table below:

<sup>&</sup>lt;sup>3</sup> The moisture content is determined by the method given in annex I of the Standard Layout – Determination of the moisture content for dried produce www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP\_e.pdf. The laboratory reference method shall be used in cases of dispute.

Commercial type	Extra	Class I	Class II
Guajillo	Uniform; intense or dark red with no discoloration	Slight variation in colour intensity with no discoloration	Variation in colour intensity including discolouration within the limits of the minimum requirements
Puya	Uniform; intense or dark red with no discoloration	Slight variation in colour intensity with no discoloration	Variation in colour intensity including discolouration within the limits of the minimum requirements
Ancho	Uniform; light red to dark red with no discoloration	Slight variation in colour intensity with no discoloration	Variation in colour intensity including discolouration within the limits of the minimum requirements
Mulato	Uniform; intense black with no discoloration	Slight variation in colour intensity with no discoloration	Variation in colour intensity including discolouration within the limits of the minimum requirements
Pasilla	Uniform intense black with no discoloration	Slight variation in colour intensity with no discoloration	Variation in colour intensity including discolouration within the limits of the minimum requirements
De árbol	Uniform intense red with no discoloration	Slight variation in colour intensity with no discoloration	Variation in colour intensity including discolouration within the limits of the minimum requirements
Others	Uniform; colour characteristic of the commercial type with no discoloration	Slight variation in colour intensity with no discoloration	Variation in colour intensity including discolouration within the limits of the minimum requirements

# E. Pungency

Commercial types of whole dried chilli peppers are characterized by pungency in accordance with the annex.

In case of dispute, or when requested, the packer and/or dispatcher/shipper shall supply information regarding the level of pungency.

# III. Provisions concerning sizing

Size is determined by the length (measured from the apex to the insertion point of the peduncle at the calyx).

The commercial types are sized in accordance with the following table:

Commercial type	Class	Length (cm)
Pasilla	Extra	> 20
	Class I	> 14

Commercial type	Class	Length (cm)
	Class II	< 14
Guajillo	Extra	> 14
	Class I	> 10
	Class II	< 10
Puya	Extra	> 10
	Class I	> 8
	Class II	< 8
Ancho, Mulato	Extra	> 10
	Class I	> 7
	Class II	< 7
De árbol	Extra	> 9
	Class I	> 9
	Class II	< 9
Chipotle	Extra	> 7
	Class I	> 4
	Class II	< 4
Cascabel	Extra	> 5
	Class I	> 3
	Class II	< 3
Habanero, Catarina	Extra	≥ 4
	Class I	> 2
	Class II	< 2
Piquin (bird eye)	Extra	≤ 1
	Class I	≤ 1
	Class II	≤ 1

Other commercial types are sized in accordance with the existing commercial trading practices.

Sizing of whole dried chilli peppers is mandatory for "Extra" Class and Class 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 minimum requirements of the class indicated.

### A. Quality tolerances

			allowed, pe produce, by or weight	rcentage of number
Defe	Defects allowed		Class I	Class II
(a)	Tolerances for produce not satisfying the minimum requirements of which no more than:	5	10	15
	Blemishes, stains, discolorations, burns, scratches, scars, deformations	2	5	10
	Decayed and mouldy produce	0.5	1	2
	Damaged by pests	0.5	0.5	1
	Living pests	0	0	0
	Missing stems and broken produce	5	7	10
(b)	Size tolerances, if sized			
	For produce not conforming to the size indicated, in total	10	10	10
(c)	Tolerances for other defects			
	Foreign matter (by weight)	1	1	1
	Whole dried chilli peppers belonging to commercial types other than that indicated	. 5	10	10

# V. Provisions concerning presentation

# A. Uniformity

The contents of each package must be uniform and contain only whole dried chilli peppers of the same origin, quality, colour, size (if sized) and commercial type.

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

### B. Packaging

Whole dried 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.

Packages must be free of all foreign matter in accordance with the table of tolerances in section "IV. Provisions concerning tolerances".

# VI. Provisions concerning marking

Each package<sup>4</sup> 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:

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 authority<sup>5</sup>.

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

- "Whole dried chilli peppers"
- Name of the commercial type
- Level of pungency indicated as "mild", "medium", "hot" or "extra hot", as appropriate.

### C. Origin of produce

Country of origin<sup>6</sup> and, optionally, district where grown or national, regional or local place name.

### D. Commercial specifications

- · Class
- Size (if sized): expressed as size range or minimum size followed by "and over"
- Method of drying (optional)
- "Best before" followed by the date (optional).

# E. Official control mark (optional)

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<sup>&</sup>lt;sup>4</sup> These marking provisions do not apply to sales packages presented in packages.

<sup>&</sup>lt;sup>5</sup> The national legislation of a number of countries requires the explicit declaration of the name and address. However, in cases where a code mark is used, the reference "packer and/or dispatcher" (or equivalent abbreviations) must be indicated in close connection with the code mark, and the code mark should be preceded by the ISO 3166 alpha country code of the recognizing country, if not the country of origin.

<sup>&</sup>lt;sup>6</sup> The full or commonly used name should be indicated.

# **Annex**

# Pungency of certain commercial types of whole dried chilli peppers

The following commercial types of whole dried chilli peppers are characterized by pungency in accordance with the following table.

Level of pungency	Total capsaicinoids (μg/g dry weight)	Pungency Intensity (Scoville units a)	Examples of commercial types
Mild	60 - 200	900 - 3000	Ancho, Mulato, Pasilla
Medium	201-334	3001 – 5 000	Guajillo, Cascabel, Catarina
Medium to hot	335 – 2009	5 001 – 30 000	Puya, De árbol, Chipotle
Hot	2010 - 6670	30 010 - 100 000	Piquín (Bird Eye)
Extra hot	> 6670	> 100 000	Habanero

The Scoville scale is a system to measure the pungency in chillies. High performance liquid chromatography (HPLC) can also be used to measure content of capsaicin in chillies.