
UNECE STANDARD FFV-53

concerning the marketing and
commercial quality control of

TRUFFLES

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NOTE

Working Party on Agricultural Quality Standards

The commercial quality standards developed by the Working Party on Agricultural Quality Standards of the United Nations Economic Commission for Europe (UNECE) 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 present Standard for Truffles is based on document ECE/CTCS/WP.7/2016/15, reviewed and adopted by the Working Party at its seventy-second session.

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UNECE standard FFV-53 concerning the marketing and commercial quality control of truffles

I. Definition of produce¹

This standard applies to ascocarps (fruiting bodies) of truffles of species of the genus *Tuber*, to be supplied fresh to the consumer, truffles for industrial processing being excluded.

A non-exhaustive list of commercialized truffles is presented below.

<i>Species</i>	<i>Common Name</i>	<i>Reference</i>
<i>Tuber melanosporum</i> Vittad.	Black Truffle	Bacon (2012) <i>Identification guide to mushrooms of Britain and northern Europe</i> . John Beaufoy, Oxford
	Périgord Truffle French Truffle Périgord Black Truffle	Ulloa and Hanlin, (2012) <i>Illustrated Dictionary of Mycology</i> . APS Press, St. Paul, Minn. Hall, Brown, Zambonelli (2007), <i>Taming the Truffle</i> . Timber Press, Portland, Or
<i>Tuber brumale</i> Vittad.	Winter Truffle	Ulloa and Hanlin, (2012) <i>Illustrated Dictionary of Mycology</i> . APS Press, St. Paul, Minn.
<i>Tuber brumale</i> var. <i>moschatum</i> (Bull.) I.R. Hall, P. K. Buchanan, Wang & Cole	Musky Truffle	Hall, Brown, Zambonelli (2007), <i>Taming the Truffle</i> . Timber Press, Portland, Or.
<i>Tuber indicum</i> Cooke and Massee	Asian Black Truffle	Bonito, Trappe, Donovan, Vilgalys (2011), <i>Fungal Ecology</i> , Volume 4, Issue 1, Pages 83-93
<i>Tuber aestivum</i> Vittad.	Summer Truffle	Ulloa and Hanlin, (2012) <i>Illustrated Dictionary of Mycology</i> . APS Press, St. Paul, Minn.
<i>Tuber mesentericum</i> Vittad	Bagnoli Truffle	Hall, Brown, Zambonelli (2007), <i>Taming the Truffle</i> . Timber Press, Portland, Or
<i>T. aestivum</i> Vitt. var. <i>uncinatum</i> Chatin	Burgundy Truffle	
<i>Tuber magnatum</i> Picco	White Piedmont Truffle	Ulloa and Hanlin, (2012) <i>Illustrated Dictionary of Mycology</i> . APS Press, St. Paul, Minn.
<i>Tuber borchii</i> Vittad.	Whitish Truffle Bianchetto Truffle	Hall, Brown, Zambonelli (2007), <i>Taming the Truffle</i> . Timber Press, Portland, Or.
<i>Tuber macrosporum</i> Vittad.	Smooth Black Truffle	Hall, Brown, Zambonelli (2007), <i>Taming the Truffle</i> . Timber Press, Portland, Or.
<i>Tuber gibbosum</i> Harkn.	Oregon White Truffle	Davis, Sommer, Menge, (2012) <i>Field Guide to Mushrooms of</i>

¹ All information on Latin names is taken from Index Fungorum. See www.indexfungorum.org.

<i>Species</i>	<i>Common Name</i>	<i>Reference</i>
		<i>Western North America. University of California Press, Berkeley</i>

II. Provisions concerning quality

The purpose of the standard is to define the quality requirements for truffles after preparation and packaging.

However, if applied at stages following export/dispatch, 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 truffles must be:

- intact; however, a slight superficial cut is not regarded as a defect
- firm
- 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; the residual soil rate must not exceed 5 % by weight
- positively identifiable
- practically free from pests
- practically free from damage caused by pests
- free from damage caused by frost
- free of abnormal external moisture
- free of any foreign smell and/or taste.

The development and condition of the truffles 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 truffles must be sufficiently developed and display satisfactory maturity and/or ripeness.

C. Classification

Truffles are classified in three classes, as defined below:

(i) “Extra” Class

Truffles in this class must be of superior quality. They must be characteristic of the species.

They must have a rounded shape, more or less regular and lobed.

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

(ii) Class I

Truffles in this class must be of good quality. They must be characteristic of the species.

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
- a slight defect in development
- slight defects in colouring
- slight superficial bruising.

(iii) Class II

This class includes truffles 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 truffles retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in development
- defects in colouring
- superficial bruising
- slight superficial damages caused by pests provided they are not developing.

III. Provisions concerning sizing

Size is determined by the weight of the truffle.

The minimum weight shall be

- 20 g for Extra Class
- 10 g for Class I
- 5 g for Class II.

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.²

² A conformity check shall be made by assessing primary or composite samples. It is based on the principle of presumption that the quality of the randomly taken samples is representative of the quality of the lot. The OECD Operating Rules for Conformity Checks are recommended for application – also by operators – at the stages of dispatch as well as in wholesale and distribution centres and storerooms of food retail.

A. Quality tolerances

(i) “Extra” Class

A total tolerance of 2 per cent, by weight, of truffles 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 5 per cent, by weight, of truffles 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 weight, of truffles 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: a total tolerance of 10 per cent, by weight, of truffles 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 truffles of the same origin, species, quality, size (if sized), maturity, development, and colouring.

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

B. Packaging

The truffles 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 package³ must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

³ These marking provisions do not apply to sales packages presented in packages bearing these particulars. However, they do apply to sales packages (pre-packages) presented individually.

A. Identification

Packer and/or dispatcher/exporter:

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 authority⁴ if the country applying such a system is listed in the UNECE Code Mark Registry⁵. In the case where there is no street address available, the physical address can be made up of the name of the farm or facility, the nearest village, town, region, and postal code; or GPS coordinates and a PO Box address together with nearest town, region and country shall be accepted as a physical address.⁶

B. Nature of produce

- “Truffles” if the contents are not visible from the outside
- Species - Latin name and common name.

C. Origin of produce

- Country of origin⁷ and, optionally, district where grown, or national, regional or local place name.

D. Commercial specifications

- Class.

E. Official control mark (optional)

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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-2) country/area code of the recognizing country, if not the country of origin.

⁵ See <http://www.unece.org/trade/agr/codemarkregistry.html>.

⁶ Reservation by the United States of America on the use of a PO Box address, as it may not allow facility inspections or rapid intervention in case of recalls, and is not part of its national labelling requirement related to packer and/or dispatcher/exporter.

⁷ The full or a commonly used name should be indicated.