

REVISED POST-SESSION VERSION – AUGUST 2012

UNECE Standard on the marketing and
commercial quality control of



INSHELL WALNUTS

Explanatory Brochure

NOTE

Commercial quality standards for agricultural produce are developed and approved by the United Nations Economic Commission for Europe through its Working Party on Agricultural Quality Standards. These international standards facilitate trade, encourage high-quality production, improve profitability and protect consumer interests. They are used by governments, producers, traders, importers and exporters, as well as 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.

The Explanatory Brochure on the new Standard for inshell walnuts from varieties (cultivars) grown from Juglans regia L. has been developed to harmonize the interpretation of the Standard, thereby facilitating international as well as national trade. It addresses producers and traders, as well as inspection authorities. It corresponds to the latest edition of the DDP-01 new Standard for Inshell walnuts, based on document [ECE/TRADE/C/WP.7/2012/16], reviewed and adopted by the Working Party at its [sixty-eighth session], which was officially adopted in November 2012. Subsequent revisions to the Standard will be placed on the website at: <http://www.unece.org/trade/agr/standard/dry/ddp-standards.html>

All members of the United Nations can participate on an equal footing in the activities of the Working Party on Agricultural Quality Standards.

For more information, please visit our website <http://www.unece.org/trade/agr>.

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I

DEFINITION OF PRODUCE

I DEFINITION OF PRODUCE

This Standard applies to inshell walnuts free from outer husks, of varieties (cultivars) grown from *Juglans regia L.*, from which the hull has been removed, to be supplied to the consumers, 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 inshell walnuts that are processed by salting, sugaring, flavouring or roasting, or for industrial processing.

INTERPRETATION

Inshell walnuts come in a range of colors, sizes and shapes (light to dark brown, round or oval, Extra or Class I and II). The following are excluded from this standard: Inshell walnuts for industrial processing.





II

PROVISIONS CONCERNING QUALITY

III PROVISIONS CONCERNING QUALITY

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

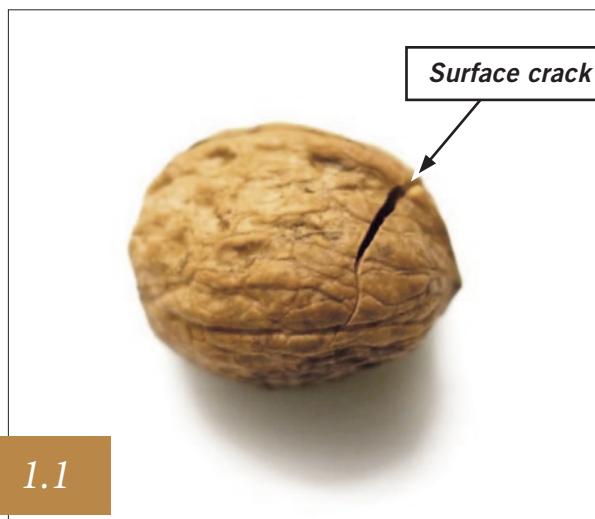
However, if applied at stages following export, the holder/seller shall be responsible for observing the requirements of the standard. The holder/seller of products not in conformity with this standard may not display such products or offer them for sale, or deliver or market them in any other manner.

A. MINIMUM REQUIREMENTS¹

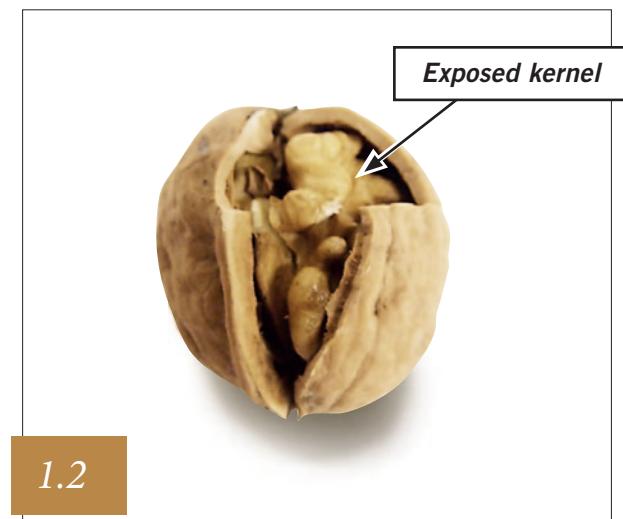
In all classes, subject to the special provisions for each class and the tolerances allowed, the inshell walnuts must display the following characteristics:

a) The shell must be:

- intact; however, slight superficial damage and partially open walnuts are not considered as a defect, provided the kernel is physically protected (*photo 1.1 acceptable, 1.2 unacceptable*)



Slight superficial damage
(*acceptable*)



Superficial damage
(*unacceptable*)

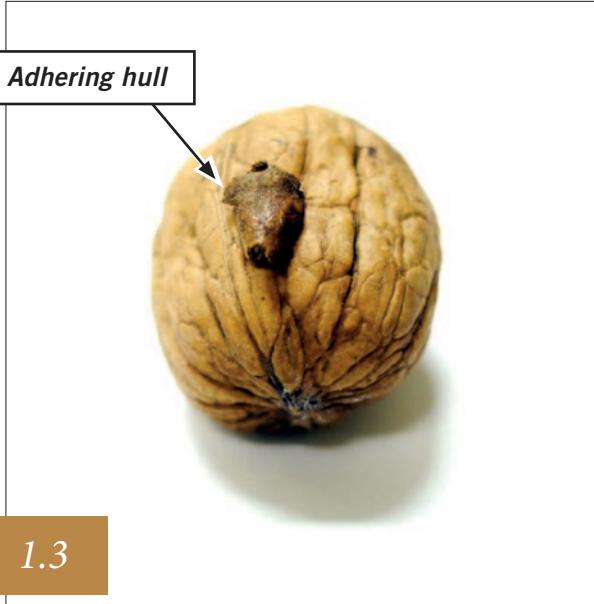
INTERPRETATION

Superficial damage are walnuts from which an area greater than of a circle ¼" (6.35 mm) in diameter of the shell is missing, or the halves are completely broken apart and separated. Halves completely broken apart and separated shall be scored at the rate of two for one. Two halves shall be scored as one defective nut.

¹⁾ 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 <http://www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP_e.pdf>

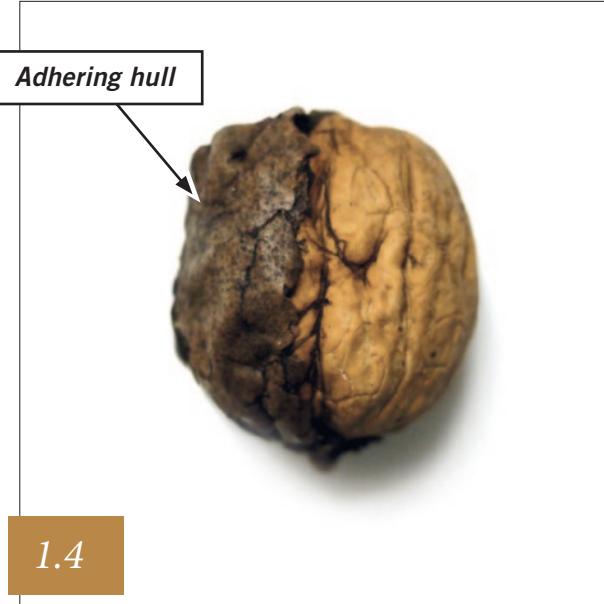
III PROVISIONS CONCERNING QUALITY

- clean; practically free of any visible foreign matter, including residues of adhering husk and dirt affecting in aggregate more than 10 per cent of the total surface area (*photos 1.3 to 1.7*)



1.3

Adhering Hull/husk < 10%
(Acceptable)



1.4

Adhering Hull/husk > 10%
(Unacceptable)

INTERPRETATION

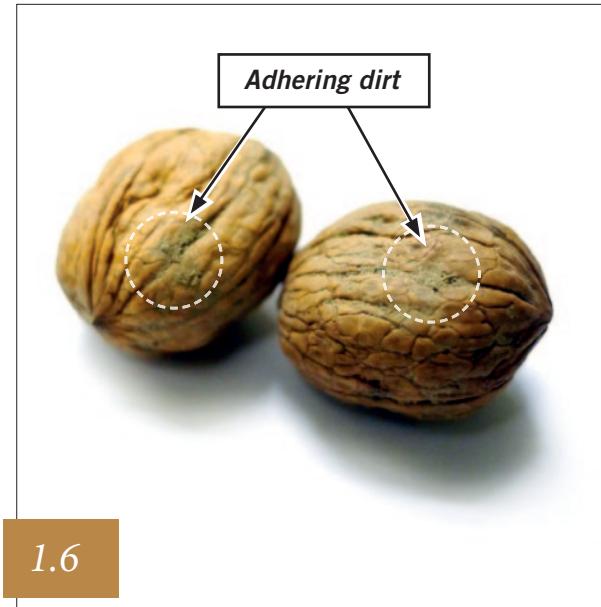
Discoloration or spread stains means the color of the affected portion of the shell is in pronounced contrast with the color of the rest of the shell.



1.5

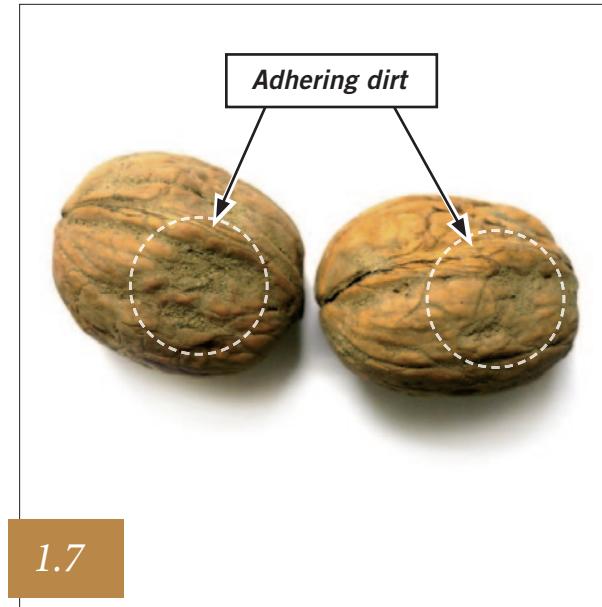
Clean Shell
(Acceptable)

III PROVISIONS CONCERNING QUALITY



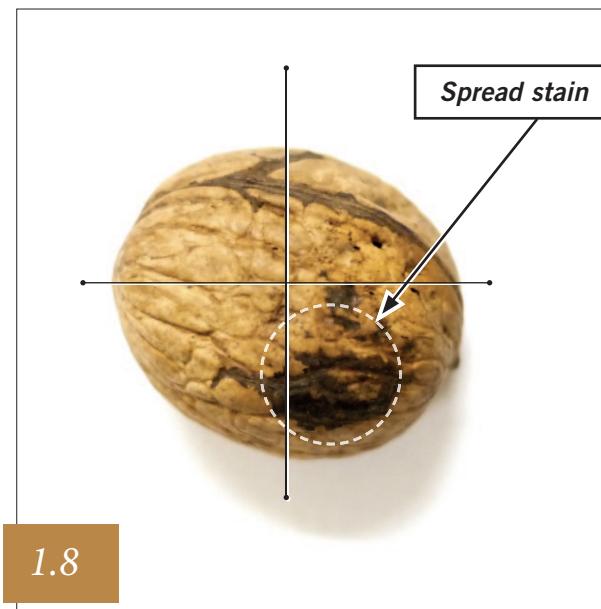
1.6

Adhering dirt < 10%
(Acceptable)



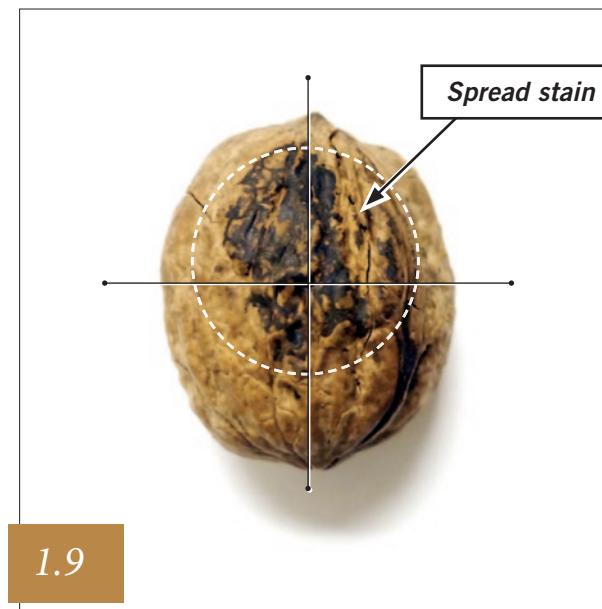
1.7

Adhering dirt > 10%
(Unacceptable)



1.8

Discolored or spread stain < 25%
(Acceptable)



1.9

Discolored or spread stain > 25%
(Unacceptable)

NOTE: Each quadrant approximates 12.5%

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III PROVISIONS CONCERNING QUALITY

b) The kernel must be:

- free from rancidity (*photo 1.10*)
- sufficiently developed
- free of dried tough portions affecting more than 12.5% (*Photo 1.10*)

Rancid



1.10

Rancid kernels
(*Unacceptable*)

Tough or shriveled kernels > 12.5%
(*Unacceptable*)

NOTE: Each quadrant approximates 12.5%

INTERPRETATION

Rancid kernels are often darker in color than the average kernel and may have a yellowish-brown or oily appearance.

INTERPRETATION

Shriveled kernels implies that the kernel has shrunk sufficiently from the maximum size so that the pellicle, or skin, is noticeably wrinkled and/or part of the kernel tissue has dried out and become hard.

III PROVISIONS CONCERNING QUALITY

- sufficiently mature for fresh walnuts; i.e. it must be possible to peel off the skin of the kernel easily and the internal central partition must be turning brown
- free from blemishes, areas of discoloration or spread stains in pronounced contrast with the rest of the kernel affecting in aggregate more than 25 per cent of the surface of the kernel (*Photo 1.12*)



1.12

Stained or discolored kernel > 25%
(Not Acceptable)

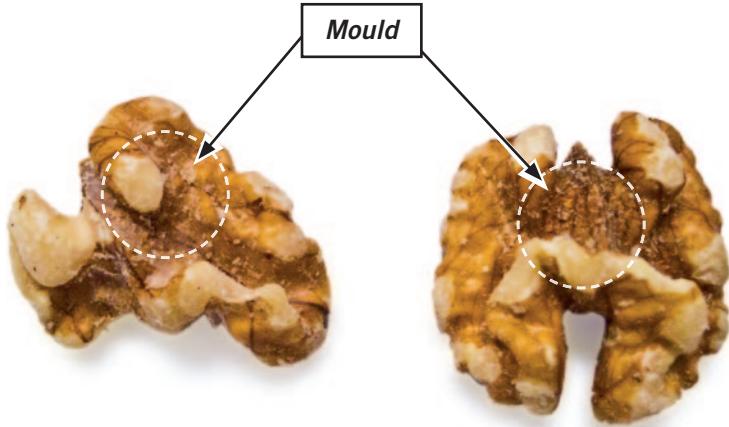
INTERPRETATION

Discoloration of exposed meat of the kernel is due to release of oil, oxidation etc. A light, yellowish-brown oily appearance of the flesh is fairly common and shall not be considered as a discoloration defect.

III PROVISIONS CONCERNING QUALITY

c) The whole produce (shell and kernel) must be:

- sound; produce affected by rotting or deterioration such as to make the produce unfit for human consumption is excluded
- free from mould filaments visible to the naked eye (*photo 1.13*)
- 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 of abnormal external moisture
- free of foreign smell and/or taste.



1.13

Mould filaments on kernel
(*Not Acceptable*)

INTERPRETATION

Inshell walnuts and kernels must be free of visible mould filaments or mycelia. Mould filaments grow and develop when walnuts are packaged and stored with excess moisture. Mould filaments and mycelia come from microorganisms (usually fungus) growing and developing on internal and external parts of fruits. Excess moisture of walnuts and/or warm conditions during storage of promote and increase the presence and contamination with fungus resulting in high levels of visible filaments and mycelia, spores, causing deterioration of color, texture, moisture content, flavor, smell and taste of produce.

III PROVISIONS CONCERNING QUALITY

- The shells may be washed and bleached provided that the treatment applied does not affect the quality of the kernels.
- The condition of the inshell walnuts must be such as to enable them (*photo 1.14*):
 - to withstand transportation and handling
 - to arrive in satisfactory condition at the place of destination.



1.14

Walnuts of excellent quality (inshell and kernel)
(Acceptable)

INTERPRETATION

The inshell walnuts must be free of any disease or serious deterioration which appreciably affects their appearance, edibility or keeping quality.

III PROVISIONS CONCERNING QUALITY

B. MOISTURE CONTENT²

- The fresh inshell walnuts shall have a natural moisture content of at least 20.0 per cent (US does not participate in fresh walnut standard; France).
- The dry inshell walnuts shall have a moisture content not exceeding 12.0 per cent for the whole nut or 8.0 per cent for the kernel.³
- This method is based on the method prescribed by AOAC: AOAC Official Method 934.06 - Moisture in Dried Fruits.

INTERPRETATION

Maximum moisture content refers to the limits of moisture allowed for the produce in order to be commercialized. It is important to understand that excess moisture of the produce increases microorganism and insect development, contamination and deterioration of produce. Excess drying, on the other hand makes product easy to break. Broken inshell walnuts are unacceptable for commercialization, therefore, excess moisture and excess drying are not allowed.

C. CLASSIFICATION

- In accordance with the defects allowed in section “IV. Provisions concerning tolerances” the inshell walnuts are classified into the following classes:
“Extra” Class, Class I and Class II.

INTERPRETATION

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

2) The moisture content is determined by the method given in annex I of the Standard Layout – Determination of the moisture content for dried produce <http://www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP_e.pdf>. The laboratory reference method shall be used in cases of dispute.

3) Reservation from Romania, requesting 10% and 6% respectively.



A row of five walnuts of varying sizes and textures, arranged horizontally across the top of the page. The shells are brown and textured.

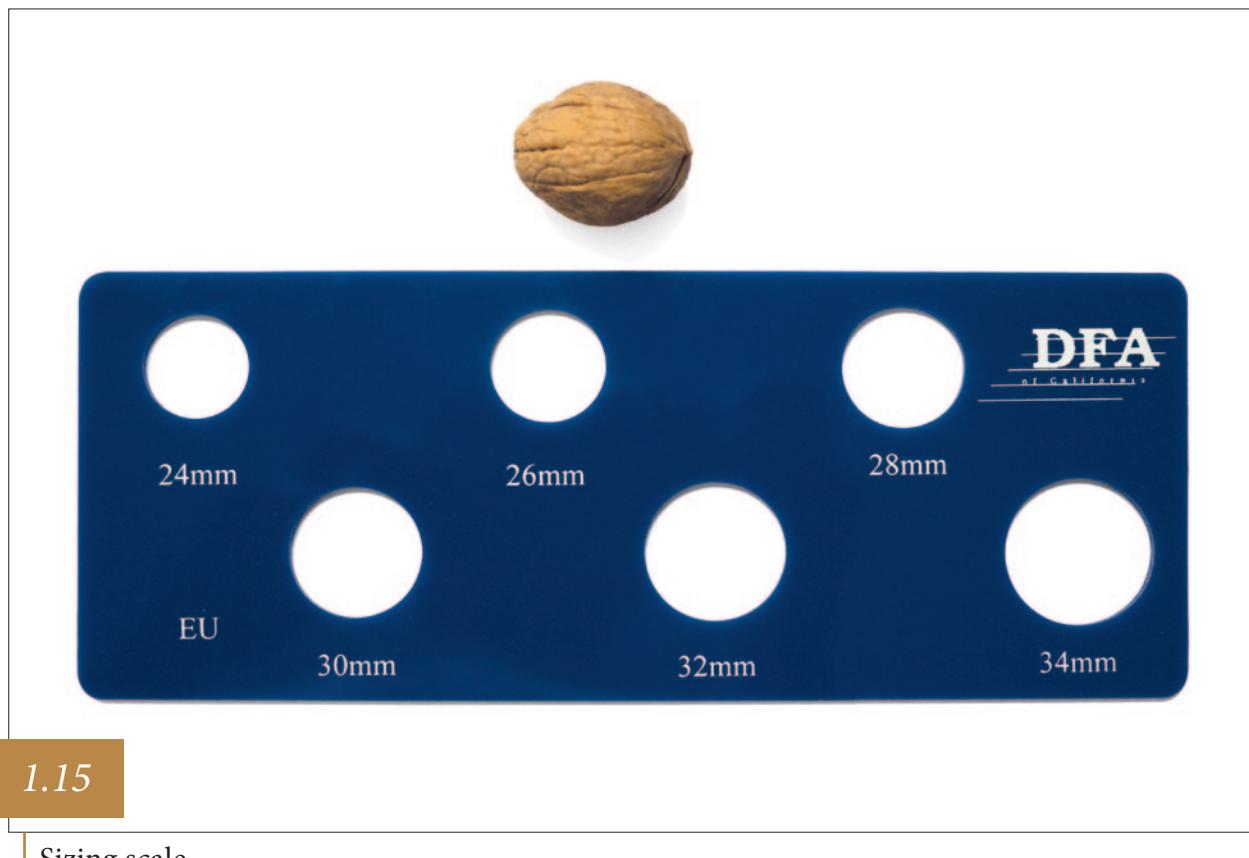
III

PROVISIONS CONCERNING SIZING

III PROVISIONS CONCERNING SIZING

Size is determined by

- Screening, i.e. minimum diameter in mm measured by round sieve. Or
- Size range, i.e. minimum and maximum diameter in mm which must not exceed 2 mm of difference. However, for oblong varieties having a height of at least 1.25 times of the equatorial section, the maximum size range shall not exceed 3 mm.
- The minimum size is 26 mm for Classes Extra and I and 24 mm for Class II (*photo 1.15*).



INTERPRETATION

*Each class type must meet the required size in order to be accepted for commercialization and to improve the uniformity within the package (*photo 1.13*)*



IV

PROVISIONS CONCERNING TOLERANCES

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.

INTERPRETATION

Tolerances are provided to allow for size deviation in inshell walnuts.

To determine conformity with the tolerances, samples are taken according to Annex II of the OECD Council Decision [C(2006)95]*. Decision on conformity of the lot is taken depending on the percentage of non-conforming produce in the total sample.

* Downloadable from:
www.oecd.org/dataoecd/33/0/19517729.pdf



A. QUALITY TOLERANCES

Tolerances allowed, percentage of defective inshell walnuts by count or weight (with regard to total inshell weight basis)

DEFECTS ALLOWED	EXTRA	CLASS I	CLASS II
(a) <i>Tolerances for defects affecting the external appearances of the shell such as shells with adhering husk/hull, dirt and blemishes, open, broken or damaged shells.</i>	7	10	15
(b) <i>Tolerances for the edible part not satisfying the minimum requirements:</i> Of which, no more than: <ul style="list-style-type: none">• Mouldy• Not sufficiently developed, shrunken or shriveled*• Rancid or damaged by pests, rotting or deterioration• Living Pests	8	10	15
(c) <i>Size tolerances (if sized)</i> For inshell walnuts not conforming to the provisions concerning sizing and the size indicated in total	10	10	10
(d) <i>Tolerances for other defects:</i> Of which no more than: <ul style="list-style-type: none">• Loose extraneous foreign material, fragments of hull, dust, etc. (by weight)• Inshell walnuts belonging to other varieties or commercial types than that indicated	2	3	4
	10	10	10

* In the calculation of tolerances, whatever the class, two half-empty walnuts or four quarter-empty walnuts are counted as one empty walnut.



V

PROVISIONS
CONCERNING
PRESENTATION

V

PROVISIONS CONCERNING PRESENTATION

A. UNIFORMITY

The contents of each package must be uniform and contain only inshell walnuts of the same origin, quality, crop year, size (if sized) and variety or commercial type (if indicated).

The visible part of the contents of the package must be representative of its entire contents (*photo 1.16*)



1.16

Inshell walnuts, uniform appearance

V

PROVISIONS CONCERNING PRESENTATION

B. PACKAGING

- Inshell walnuts 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 so as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper and 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”.

INTERPRETATION

Packaging must be of such quality and strength as to protect the inshell walnuts during transportation and handling (photos 1.17, 1.18 and 1.19).



1.17

Inshell walnut super sacks

2) The moisture content is determined by the method given in annex I of the Standard Layout – Determination of the moisture content for dried produce <http://www.unece.org/trade/agr/standard/dry/StandardLayout/StandardLayoutDDP_e.pdf>. The laboratory reference method shall be used in cases of dispute.

3) Reservation from Romania, requesting 10% and 6% respectively.

V

PROVISIONS CONCERNING PRESENTATION



1.18

Inshell walnut bags



1.19

Inshell walnut cartons



VI

PROVISIONS CONCERNING MARKING

VI PROVISIONS CONCERNING MARKING

Each package⁴ must bear the following particulars in letters grouped on the same side, legibly and indelibly marked and visible from the outside:

INTERPRETATION

On each package, all particulars must be grouped on the same side of the package, either on a label attached to or printed on the package with water insoluble ink.

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 authority⁵.

INTERPRETATION

For inspection purposes, the “packer” is the person or firm responsible for the packaging of the produce (this does not mean the staff that actually carry out the work, who are responsible only to their employer). The code mark is not a trademark but an official control system enabling the person or firm responsible for packaging to be readily identified. The dispatcher (shipper or exporter) may, however, assume sole responsibility, in which case identification of the “packer” as defined above is optional (photo 1.20).



1.20

Marking: Identification of packer/dispatcher, address, size, produce origin

4) These marking provisions do not apply to sales packages presented in packages.

5) 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 with the ISO 3166 alpha country code of the recognizing country, if not the country of origin.

VI PROVISIONS CONCERNING MARKING

B. NATURE OF PRODUCE

- “**Walnuts**” or “**Dry walnuts**”; or “**Fresh walnuts**” or **equivalent denomination Name** of the variety or commercial types (optional).
- “**Fresh Walnuts**” or equivalent denomination
- Name of the variety or commercial types (optional)

C. ORIGIN OF PRODUCE

- **Country of origin**⁶ and, optionally, district where grown or national, regional or local place name.

D. COMMERCIAL SPECIFICATIONS

- **Class**
- **Size** (if sized); expressed by:
 - The minimum diameter followed by the words “**and above**” or “**and +**”; or
 - The minimum and maximum diameters
- **Crop year** (mandatory for “Extra” class and class I, optional for class II)”
- “**Best before**” followed by the date (optional)
- “**Store in a cool place**”, or “**preservation very limited, store in a cool place**”, for fresh walnuts.

E. OFFICIAL CONTROL MARK (OPTIONAL)

- **Adopted 1970** (as UNECE Standard for Unshelled Walnuts)

6) The full or a commonly used name should be indicated.



ECONOMIC COMMISSION FOR EUROPE COMMITTEE ON TRADE

WORKING PARTY ON AGRICULTURAL QUALITY STANDARDS

Specialized Section on Standardization of Dry and Dried Produce

Sixty-eighth session

Geneva, 5-7 November 2012

Item 7 (a) of the provisional agenda

Specialized section on Standardization of Dry and Dried produce

Text for adoption as UNECE recommendations

REVISED POST-SESSION VERSION – November 2012

Inshell Walnuts

Draft Explanatory Brochure

Proposal by the delegation of United States of America

The following draft explanatory brochure for Inshell Walnuts was submitted by the delegation of USA.