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Specialized Section on Standardization of
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REPORT ON ITS FIFTY-FIRST SESSION

Addendum 1

REVISED UNECE RECOMMENDATION FOR INSHELL ALMONDS

Note by the secretariat : This document is the result of the discussions at the 51st session of the Specialized Section on Dry and Dried Produce based on the recommendation in force. The Specialized Section decided to amend the recommendation as in the present document and to propose to the Working Party to extend the trial period for one further year.

UNECE RECOMMENDATION
concerning the marketing and commercial quality control of

INSHELL ALMONDS

I. DEFINITION OF PRODUCE

This standard applies to sweet inshell almonds of varieties (cultivars) grown from *Prunus amygdalus* Batsch, syn. *Prunus dulcis* (Mill.) D.A. Webb, from which the fleshy hull (epicarp and mesocarp) has been removed, intended for direct consumption.

It does not apply to inshell almonds intended for industrial processing or for use in the food industry and to bitter inshell almonds marketed under this denomination.

Inshell almonds are classified into two groups according to the hardness of the shell, as defined below: ¹

- Soft/semi-soft: inshell almonds which can be easily cracked with the fingers or with a nutcracker.
- Hard: inshell almonds which can be cracked only with a hammer or similar devices.

II. PROVISIONS CONCERNING QUALITY

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

A. Minimum requirements ²

- (i) In all classes, subject to the special provisions for each class and the tolerances allowed, inshell almonds must display the following characteristics:
 - (a) The shell must be:
 - intact; cracks, superficial damage and small outer parts of the shell missing are not considered as a defect provided the kernel is physically protected;
 - sound; free from defects likely to affect the natural keeping quality of the inshell almond; free from gum exceeding an aggregate area of 6 mm in diameter;
 - clean, practically free of any visible foreign matter; adhering dirt or soil;

¹ Other equivalent denominations commonly used in international trade for the soft/semi-soft group are accepted, as are "Paper type", "Mollares", "Fitas" etc.

² Definitions of terms and defects are listed in Annex III of the Standard Layout – Recommended Terms and Definition of Defects for Standards of Dry Fruits (Inshell Nuts and Nut Kernels) and Dried Fruits (http://www.unece.org/trade/agr/info/layout_e.pdf).

- dry; free of abnormal external moisture;
- free from residues of adhering hull affecting in aggregate more than 5 per cent of the total shell surface;
- free of damage caused by pests, including the presence of dead insects, insect debris or excreta;
- free from blemishes, discoloration or spread stains affecting in aggregate more than 25 per cent of the surface of the shell;³
- well formed; not noticeably misshapen.

(b) The kernel must be:

- sufficiently dry to ensure keeping quality;
- sweet, free of bitter taste;
- intact;
- sound; produce affected by rotting or deterioration rendering them unfit for consumption are excluded;
- free from gum (resinous substance) exceeding an aggregate area of 6 mm in diameter;
- free from brown spot (slightly depressed brown spots, either single or multiple, caused by the sting of insects, such as the box elder bug (*Leptocoris trivittatus* Say)), exceeding an aggregate area of 3 mm in diameter;
- clean, practically free of any visible foreign matter;
- sufficiently developed; empty shells and shrunken or shrivelled kernels⁴ are to be excluded;⁵
- free from insects or mites whatever their stage of development;
- free of damage caused by pests including the presence of dead insects, insect debris or excreta.;

³ *The almond shell may be brushed and bleached, provided that the treatment applied does not affect the quality of the kernel and it is permitted by the regulations of the importing country.*

⁴ *Shrunken or shrivelled kernels which are extremely flat and wrinkled, or with desiccated, dried out or tough portions, when the affected portion represents more than 25 per cent of the kernel.*

⁵ *Twin or double kernels, i. e. kernels of characteristic shape, with one side flat or concave, as a consequence of the development of two kernels in the same shell, are not considered as a defect.*

- free from blemishes, discoloration or spread stains affecting in aggregate more than 25 per cent of the surface of the skin (for gum or brown spot see above);
- free from mould filaments visible to the naked eye;
- free from rancidity;
- free of foreign smell and/or taste.

The condition of the inshell almonds must be such as to enable them:

- to withstand transport and handling, and
- to arrive in satisfactory condition at the place of destination.

(ii) Moisture content

Inshell almonds shall have a moisture content not exceeding 11.0 per cent for the whole nut, or 7.0 per cent for the almond kernel.⁶

B. Classification

Inshell almonds are classified in three classes defined below:

(i) ***“Extra Class”***

Inshell almonds in this class must be of superior quality and must have similar characteristics⁷ and belong to the soft/semi-soft group.

The defects allowed in Chapter IV: Provisions Concerning Tolerances must not affect the general appearance of the produce, the quality, keeping quality and presentation in the package.

(ii) ***Class I***

Inshell almonds in this class must be of good quality and belong to the soft/semi-soft group.

The defects allowed in Chapter IV: Provisions Concerning Tolerances must not affect the general appearance of the produce, the quality, keeping quality and presentation in the package.

⁶ *The moisture content is determined by one of the methods given in Annex II of the Standard Layout - Determination of Moisture Content for Dry Fruit. (http://www.unece.org/trade/agr/info/layout/laydry_e.pdf). The laboratory reference method shall be used in cases of dispute.*

⁷ *Similar characteristics mean that the inshell almonds in each lot are similar in shape and appearance, and reasonably uniform in degree of hardness of the shell.*

(iii) ***Class II***

Inshell almonds in this class must be of marketable quality and belong to either the soft/semi-soft group, or the hard group. Mixtures of these groups are not allowed.

The defects allowed in Chapter IV: Provisions Concerning Tolerances must not affect the essential characteristics of the produce as regards the quality, keeping quality and presentation.

III. PROVISIONS CONCERNING SIZING

Sizing is optional in all Classes.

Size is determined by:

- the maximum diameter of the equatorial section of the shell, by means of round-holed or elongated-holed screens or
- the number of inshell almonds per 100 g or per ounce (28.3495 g).

Uniformity in size is expressed by:

- (i) A size range defined by:
 - a minimum and maximum size in millimetres which must not exceed 2mm of difference or
 - a range in count, (the weight of 10 per cent by count of the largest inshell almonds shall not exceed 1.5 times the weight of the 10 per cent of the smallest inshell almonds)
- (ii) Screening, defined as a minimum or maximum:
 - size in diameter or
 - number of inshell almonds per 100 g or per ounce

IV. PROVISIONS CONCERNING TOLERANCES

Tolerances in respect of quality and size are allowed in each package for produce not satisfying the requirements of the class indicated.

A. Quality tolerances

Defects allowed	Tolerances allowed		
	(per cent of defective inshell almonds by count)		
	Extra	Class I	Class II
(a) Total tolerances for inshell almonds not satisfying the minimum requirements for the shell, of which no more than:	5	10	15
- inshell almonds with residue of adhering hull and/or affected by stains or discoloration, damaged by pests, rotting or deterioration	1	3	5
(b) Total tolerances for inshell almonds not satisfying the minimum requirements for the kernel , of which no more than:	8	10	15
- bitter almonds	1	3	4
- almonds kernels affected by gum or brown spot	3	7	10
- shrunken or shrivelled, not sufficiently developed kernels and empty nuts	3	5	10
- rancid, rotten, mouldy and damaged by pests ^a of which mouldy, no more than: ⁸	2 0,5	5 1	7 2
(c) Tolerances for other defects (not included in total tolerances) :	per cent of defects by weight (calculated by weight, with regard to the total inshell weight basis) or by count		
- loose shells, shell fragments (including dust), fragments of hull (by weight)	1	2	3
- foreign matter (by weight)	0.25	0.25	0.25
- living insects	0	0	0
- inshell almonds belonging to other varieties than the variety indicated on the package (by count)	10	10	10
- hard inshell almonds in lots not labelled as "hard" (by count)	5	10	10

⁸ *Reservation of Poland that the tolerance for mould should be 0.5 per cent regardless of the class.*

C. Size tolerances

For all classes, (if sized by the maximum diameter), 15 per cent, by count, of inshell almonds not conforming to the size or screen indicated is allowed.

When sizing or screening is carried out by the number of inshell almonds per 100 g or per ounce, no tolerance for counts above or below the specified range or screen shall be allowed.

V. PROVISIONS CONCERNING PRESENTATION**A. Uniformity**

The contents of each package must be uniform and contain only inshell almonds of the same origin, crop year, quality, and group (soft/semisoft, hard), size (if sized) and, variety (if indicated).

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

B. Packaging

Inshell almonds must be packed in such a way as to protect the produce properly.

The materials used inside the package must be new, 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.

C. Presentation

Inshell almonds must be presented in bags or solid containers. All consumer packages within each package must be of the same weight.

VI. PROVISIONS CONCERNING MARKING

Each package⁹ must bear the following particulars in letters grouped on the same side, legibly and indelibly marked and visible from the outside:

⁹ *Consumer packages for direct sale to the consumer shall not be subject to these marking provisions but shall conform to national requirements of the importing country. However, the markings referred to shall in any event be shown on the transport packaging containing such package units.*

DDF-05 Inshell Almonds

A. Identification

Packer)	Name and address or
and/or)	officially issued or
Dispatcher)	accepted code mark ¹⁰

B. Nature of produce

- "Inshell almonds" or "Almonds in the shell" or equivalent denomination
- "Hard" or equivalent denomination (where appropriate)
- Variety (optional)

C. Origin of produce

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

D. Commercial specifications

- Class;
- Size (if sized) according to the system used;
- Net weight, or number of consumer packages, followed by the net unit weight in the case of transport packages containing such units.
- Crop year (optional); mandatory according to the legislation of the importing country.
- "Best before" followed by the date (optional)

E. Official control mark (optional)

Adopted 1969 (as UNECE Standard for Unshelled Almonds)
Revised 1991
Revised 2003 and published as Recommendation for a one-year trial period
Recommendation revised 2004 and trial period extended for one year

¹⁰ *The national legislation of a number of European countries requires the explicit declaration of the name and address. 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.*