

INF.4 Proposal for a new UNECE Standard: Pecan Kernels

Contribution from the United States of America

Note by the secretariat: This text is a revised proposal for a new UNECE Standard for Pecan Kernels reproduced as received from the United States.

UNECE STANDARD
concerning the marketing and commercial
quality control of

PECAN KERNELS

I. DEFINITION OF PRODUCE

This standard applies to pecan kernels of varieties (cultivars) grown from *Carya illinoensis* (Wangenh.) K. Koch, intended for direct consumption or for use in the food industry when they are intended to be mixed with other product for direct consumption without further processing. This standard does not apply to pecan kernels for industrial processing

II. PROVISIONS CONCERNING QUALITY

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

A. Minimum requirements

(i) **General provisions**

In all classes subject to the special provisions for each class and the tolerances allowed the pecan kernels must be:

- sufficiently dry to ensure keeping quality,
- intact; slight superficial damage is not considered as a defect,
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- sufficiently developed
- clean, practically free of any visible foreign matter;
- free from insects or mites whatever their stage of development;¹
- free of significant damage caused by pests;
- free from mould filaments visible to the naked eye,
- free from rancidity,
- free of abnormal external moisture,
- free of foreign smell and/or taste.

The condition of the pecan kernels 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**

The pecan kernels shall have a moisture content not exceeding 5 per cent.²

¹ Excludes dead Pecan Larva (see tolerance table)

² *The method to be used should be one of the methods tested collaboratively and shown to give satisfactory*

B. Classification³

Pecan kernels are classified in the classes defined below:

1. Whole Kernels

(i) Class I

Pecan Kernels in this class must be of good quality. They must be characteristic of the variety and/or commercial type.

They must be:

- Fairly uniform in color
- Fairly uniform in size
- Not darker than “amber” skin color
- Practically free of pieces of shell and center wall
- Slight defects in shape/development
- Lightly scuffed, not covering more than 10 per cent of the surface area

(ii) Class II

Pecan kernels in this class must be of good quality. They must be characteristic of the variety and/or commercial type.

They must be:

- Not darker than dark “amber” skin color
- slight defects in shape/development
- Lightly scuffed, not covering more than 10 per cent of the surface area

2. Kernel Pieces

(i) Class I⁴

Results in inter-laboratory trials and which are given in Annexes I and II for dried and dry fruit. The laboratory reference method shall be used in cases of dispute.}

³ The Classes therein are Equivalent with North American Industry designations.

⁴ (U.S. Number 1)

Pecan kernels pieces in this class must be of good quality. They must be characteristic of the variety and/or commercial type.

They must.

- Not be darker than “amber” skin color
- Practically free of pieces of shell and center wall
- Must conform to all size classifications specified.

(ii) Class II.

Pecan kernel pieces in this class include those not qualifying for inclusion in Class I, but must satisfy the minimum requirements specified above.

They must:

- Not be darker than dark “amber” skin color

C. Color Classification

A. Kernels

Pecan kernels are classified into four color types defined below. Color classification for pecan kernels is optional.

Light: the outer surface of the kernel is mostly **golden** color or lighter, with not more than 25 percent of the outer surface darker than **golden**, none of which is darker than **light brown**.

Light amber: more than 25 percent of the outer surface of the kernel is **light brown**, with not more than 25 percent of the outer surface darker than **light brown**, none of which is darker than **medium brown**.

Amber: more than 25 percent of the outer surface of the kernel is **medium brown**, with not more than 25 percent of the outer surface darker than **medium brown**, none of which is darker than **dark brown** (very dark-brown or blackish-brown discoloration).

Dark amber: more than 25 percent of the outer surface of the kernel is **dark brown**, with not more than 25 percent of the outer surface darker than **dark brown** (very dark-brown or blackish-brown discoloration).

III. PROVISIONS CONCERNING SIZING

Sizing of whole pecan kernels is mandatory. Whole Pecan kernels are sized by the number of whole kernels per ounce or per 100g. Whole kernels when sized are done in accordance with Table I. Pecan kernel pieces when sized are done in accordance with Table II⁵

TABLE I

Size classifications for kernels	Number of kernels per ounce	Number of kernels per 100g.
Mammoth	16 or less	55 or less
Junior mammoth	16 - 19	55 – 66
Jumbo	19 - 22	66 – 77
Extra large	22 - 28	77 – 99
Large	28 - 34	99 – 121
Medium	34 -40	121 -143
Small (topper)	40 - 47	143 – 165
Midget	47 - or more	165 – or more

TABLE II

Size classifications	Maximum diameter (will pass through round opening of following diameter:		Minimum diameter (will not pass through round opening of following diameter:	
	in inches	in mm	in inches	in mm
Mammoth pieces	No limitation	No limitation	8/16	12.5
Extra large pieces	9/16	14.28	7/16	11.11
Halves and pieces	No limitation	No limitation	5/16	7.9
Large pieces	8/16	12.7	5/16	7.9
Medium pieces	6/16	9.52	3/16	4.76
Small pieces	4/16	6.25	2/16	3.17
Midget pieces	3/16	4.76	1/16	1.58
Granules	2/16	3.17	1/16	1.58

IV. PROVISIONS CONCERNING TOLERANCES

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

⁵ Table II, the size of pieces in a lot may be specified in terms of minimum diameter, or as a range described in terms of minimum and maximum diameters expressed in sixteenths or sixty-fourths of an inch.

A. Quality Tolerances

Defects allowed	Tolerances allowed (per cent by number or weight of defective kernel)			
	Whole Kernels		Kernel Pieces	
	Class I	Class II	Class I	Class II
Total tolerance for pecan kernels not satisfying the minimum requirements	4	9	4	9
Of which no more than:				
- Shell center wall and foreign material	0.05	0.15	0.05	0.15
Other defects	3	8	3	8
of which				
- Rancid, decay, mould, insect damage dead insect and insects parts (dead larva)	1.5	4	1.5	4
- Shriveling, shrunken more than one dark spot, not well dried, flesh discoloration or poorly developed kernel	1.5	4	1.5	4
Total Tolerance for dark amber or dark colored kernels	3	25	3	25
b) Total Tolerance for Pieces, Particles and Dust	15	17	-	-
Of which				
- Pieces less than ½ kernel	5	7	-	-
- Pieces greater than ½ kernel	9	9	-	-
- Particles and dust	1	1	-	-

B. Size tolerances

For whole kernel classes, when count per 100g or per ounce is specified, 5 per cent, by number or weight, of products not according to the size indicated on the marking; but belonging to the size range immediately above and/or below the size indicated.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

The contents of each package must be uniform and contain only pecan kernels of the same origin (optional), quality and size. The visible part of the contents of the package must be representative of the entire contents.

B. Packaging

Pecan Kernels 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 that the printing or labeling has been done with non-toxic ink or glue.

Packages must be free of all foreign matter.

C. Presentation

Pecan kernels may be presented in bags or solid containers. All consumer packages within each master container must be of the same weight.

VI. PROVISIONS CONCERNING MARKING

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

For pecan kernels transported in bulk these particulars must appear on a document accompanying the goods and be attached in a visible position inside the transport vehicle.

A. Identification

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

B. Nature of produce

- Name of the produce;
- Name of the variety and/or commercial type {according to the nature of the produce}
- Type or style {according to the definitions of the standard}
- Description of the produce

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);
- Crop year (optional or at the request of the importing country)
- Net weight, or the number of pre-packages, followed by the net unit weight in the case of packages containing such units (optional or at the request of the importing country).
- "Best before" followed by the date (optional)

E. Official control mark (optional)