DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES

STD. No.H-2

AGRICULTURAL PRODUCT STANDARDS ACT, 1990
(ACT No. 119 OF 1990)

STANDARDS AND REQUIREMENTS REGARDING CONTROL OF THE EXPORT OF IN-SHELL PECAN NUTS

The Executive Officer: Agricultural Product Standards has stipulated under section 4(3)(a)(ii) of the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990), these standards regarding the quality of In-shell Pecan Nuts and the requirements regarding the packing, marking and labelling thereof.

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STANDARDS AND REQUIREMENTS REGARDING CONTROL OF THE EXPORT OF IN-SHELL PECAN NUTS AS STIPULATED BY GOVERNMENT NOTICE NO.R.1983 OF 23 AUGUST 1991
Promulgation 1. No. 479 of 22 April 2016

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Definitions

1. In these standards and requirements any word or expression to which a meaning has been assigned in the Act, shall have a corresponding meaning and –

"adhering hull material" means material affecting aggregate of more than 5 percent of the surface of the individual shell;

"broken shells" means any portion of the shell missing which is greater than 5 mm;

"chemical residues" means residues of agricultural remedies which in terms of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947), are permissible for the treatment of pests and diseases and which do not exceed the prescribed maximum residue limit in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

"class" means a class referred to in item 4;

"consignment" means a quantity of in-shell pecan nuts, which belongs to the same owner, delivered at any one time under cover of the same consignment note, delivery note or delivered by the same vehicle;

"container" means a bag, or any other container in which pecan nuts are packed but excluding shipping containers in which pallet loads are shipped;

"damage" means any specific defect described as adhering hull material, split shells, broken shells, poorly developed kernels and kernel spots ;

"edible kernel content" means the edible part of the pecan nut after it was shelled and separated from the centre wall and other non-kernel material, as well as inedible kernels and pieces of kernels;

"Food Business Operator (FBO)" means the person or persons responsible for ensuring that the prescribed requirements of these standards are met within the food business as well as the person with overall authority on site or in the specific establishment;

"fairly uniform in colour" means that the shells do not show sufficient variation in colour to materially detract from the general appearance of the lot;

"outer container" means a container containing retail packaging;

"pecan nuts" means a fruit within a single stone or a pit surrounded by a husk and all grown from *Carya illinoinensis;*

"poorly developed" means that the kernel has a small amount of meat in proportion to its width and length;

"insect" means any live insect which is injurious to pecan nuts, irrespective of the stage of development thereof;

"insect damage" means that the kernel contains dead insects, insects damage, insect nests or insect excreta;

"inspector" means the Executive Officer or an officer under his or her control, or an Assignee or an employee of an Assignee;

"kernels" means the meats and parts of meat of pecan nuts which are obtained after shelling the nut;

"kernel spots" means when more than one dark spot is present on either half of the kernel, or when any such spot is more than 3 mm in greatest dimension;

"loose extraneous or foreign material" means loose hulls, empty broken shells, or any substance other than pecans in the shell or pecan kernels;

"mould-infested kernels" means kernels –

(a) where mould growth appears and is visible to the naked eye; and

(b) which are damaged or discoloured as a result of mould growth.

"rancid nut" means a pecan with lipid-oxidized kernels which produces an abnormal odour and shell looks dark brown, especially nuts from the previous season;

"serious damage" means any specific defect described in this section; or an equally objectionable variation of one these defects or any other defects, dark stains, broken shells, worm holes, decay and mould;

"sound kernel recovery - SKR" means the edible kernels that can be recovered after the shelling process, expressed as a percentage of a consignment of pecan nuts;

"split shells or cracked shells" means when the shell is spread apart or spread upon application of slight pressure more than 1 mm apart;

"stained shells" refers to black areas that are not typical of a pecan shell, caused by the action of worms or insects. If this stains are dark, conspicuous and in excess of the 10% area of the surface, the nut should be considered as stained.

"the Act" means the Agricultural Product Standards Act, 1990 (Act No. 119 of 1990);

"unsound kernels" means that the kernel or pieces of kernels are rancid, mouldy, decayed, injured by insects, kernel spots or otherwise unsuitable for human consumption;

"well developed" means that the kernel has a large amount of meat in proportion to its width and length; and

"well cured" means that the kernel separates freely from the shells breaks cleanly when bent without splintering, shattering or loosening the skin and the kernel appears to be in good shipping or storage condition as to moisture content.

Scope

2. These standards and requirements shall relate to in-shell pecan nuts in respect of which an approval for the export thereof is required in terms of section 4 of the Act.

Requirements for approval

3. (1) An approval referred to in section 4 of the Act, may be issued in respect of a consignment of in-shell pecan nuts if –

(a) the consignment concerned is classified in accordance with the classes and specification for classes as set out in items 4 and 5;

(b) the consignment concerned is classified in accordance with the standards for classes as set out in items 6;

(c) the consignment is packed and marked according to the packing and marking requirements as set out in items 7 to 11;

(d) the samples for inspection are drawn in accordance with the requirements as set out in items 12 to 14;

(e) the consignment concerned is inspected in accordance with the methods as set out in items 15 to 26;

(f) the consignment concerned has been presented for inspection in accordance with the Regulations regarding Control of the Export of Tree Nuts; and

(g) an inspector has, after an inspection in accordance with the said regulations, found that the provisions of these standards and requirements have been complied with in respect of the consignment concerned.

(2) The Executive Officer may deviate from the stipulated standards and requirements and issue the approval in respect of a quantity of a produce that –

(a) is to be exported as an experiment or under such other special circumstances as may be approved by the Executive Officer; and

(b) complies with the requirements for such produce in force in the

country to which it is to be exported provided further that the export documents are accordingly endorsed with the name of the importing country.

QUALITY STANDARDS

Classes

4. There are 2 classes of in-shell pecan nuts, namely -

(a) Class I; and

(b) Class II.

Sizes

5. (1) The size groups for in-shell pecan nuts shall be determined as Jumbo, Oversize, Extra-large, Large, Medium, Small and Extra small.

(2) Sizing of in-shell pecan nuts is optional. However when sized, size is determined by count and weight of the number of nuts per kilogram with the following size denominations in accordance with the table below:

Size Groups	Number of nuts per kilogram
Jumbo	100 or less
Oversize	101 to 120
Extra large	121 to 140
Large	141-170
Medium	171 -210
Small	211 -264
Extra small	265 or more

(3) If the size is mentioned on the label, then the inspection will be done according to above specifications, if there is not a size mentioned, the inspection will be done without this clause, therefore not mentioning the size of the nuts inspected.

Standards for classes

6. (1) All classes of in-shell pecan nuts (shell and kernels) shall be --

(a) free from mould filaments; visible to the naked eye;

(b) sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;

(c) free from damage;

(d) of moisture content not more than 4 percent;

(e) free from live insects or mites, whatever their stage of development;

(f) free of external moisture;

(g) free from foreign smell;

(h) if requested by the importing country, comply with the requirements for plant injurious organisms of phytosanitary importance as determined by the Director of the Directorate: Plant Health;

(i) not have a deviation specified in column 1 of Table 1, to a larger extent than the applicable maximum specified in column 2 of the said Table opposite thereto for the class concerned;

(j) not have chemical residues in quantities or at levels that exceed the prescribed maximum residue limits in terms of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972): Provided that –

(i) if the limit of the importing country is lower than is permissible in terms of Act 54 of 1972, the prescribed limit of the importing country shall be complied with; and

(ii) the Executive Officer may grant permission for pecan nuts with a higher maximum residue limit, to be exported to countries where such higher limit is permissible: Provided further that the export documents shall be accordingly endorsed with the name of the importing country.

(2) **The pecan nut's shell, shall be** --

(a) intact; slight superficial damage is not considered as a defect provided the kernel is protected;

(b) clean; practically free of any visible foreign matter; including residues of adhering hull affecting in aggregate more than 5 percent of a total shell surface;

(c) free from external moisture;

(d) free from blemishes, areas of discolouration or spread stains in pronounced contrast with the rest of the shell affecting in aggregate more than 25 per cent of the surface of the shell; and

(e) free from mould filaments visible to the naked eye.

(3) **The in-shell pecan nut's kernel shall be** --

(a) free from rancidity;

(b) sufficiently developed; shrunken or shrivelled kernels which are extremely flat and wrinkled, or with desiccated, dried out or tough portions affecting more than 25 per cent of a kernel and empty shells are to be excluded; and

(c) free from blemishes, areas of discolouration or spread stains in pronounced contrast with the rest of the kernel affecting in aggregate more than 25 per cent of the surface of a kernel.

(4) Subject to the provisions of sub-item (1) an owner may request an inspector, after an inspection, to certify as correct the specifications on the product specification sheet accompanying the consignment.

CONTAINERS AND PACKING REQUIREMENTS

Requirements for containers

7. (1) Containers containing in-shell pecan nuts shall be suitable, intact, clean, dry and odourless.

(2) Where stitching is required to close a container, it shall be done properly.

Packing requirements

8. In-shell pecan nuts of different classes may not be packed in the same container.

MARKING REQUIREMENTS

Particulars

9. Containers shall be marked with a code for purposes of traceability (lot number).

   Marking of containers with additional information is optional according to market requirements.

10. Each container or the accompanying export documents of a consignment of in-shell pecan nuts shall be marked or endorsed with:

    (a) The name of the product.

    (b) The class and size group.

    (c) The name and address or registered trade mark of the exporter or selection plant: Provided that it may be substituted by a code which has been approved beforehand in writing by the Executive Officer.

    (d) The Food Business Operator (FBO) code which has been registered by the selection plant or exporter with the Executive Officer: Provided that such a code may form part of a lot number -

        (i) if a producer has more than one farm, each farm shall be registered separately; and

        (ii) such code shall be preceded by the expression "producer", "packer", "PUC", "FBO", as the case may be, or any other suitable term having a similar meaning.

    (e) The net mass of the contents as prescribed in terms of the Trade Metrology Act 1973 (Act No. 77 of 1973).

    (f) The lot number of the consignment concerned.

    (g) The country of origin: Provided that no abbreviation or the expression "South Africa" on its own shall be used.

    (h) The intended use shall be expressed in the case of in-shell pecan nuts other than those intended for human consumption as “animal/bird feed”, “crushing purposes” etc.

Prohibited particulars

11. No wording, illustration or other means of expression that constitutes a misrepresentation or which directly or by implication, creates a misleading impression of the contents shall appear on a container which contains in-shell pecan nuts.

SAMPLING

General

12. (1) An inspector shall for the purpose of these standards and requirements abstract a random sample of in-shell pecan nuts in the following manner and shall satisfy himself or herself that the sample so abstracted is representative of the consignment concerned:

(a) In the case of a retail packaging packed in outer container -

(i) Select at random from the total number of outer containers in the consignment, specified in column 1 of Table 2 of the Annexures, the applicable number of outer container as specified in column 2 of the said table; and

(ii) Remove a sample of at least 100g from each outer container selected in (a) (i) in order to obtain a minimum of 2000g sample.

(b) In the case of containers -

(i) Select at random from the total number of outer containers in the consignment, specified in column 1 of Table 3, the applicable number of outer container as specified in column 2 of the said table; and

(ii) Remove a sample of at least 100g from each container selected in (b) (i) in order to obtain a minimum of 2000g sample.

(2) The collective sample obtained in sub-regulation 1 (a) or 1 (b) shall be thoroughly mixed before further examination.

(3) A sample that has been abstracted drawn in terms of this regulation shall be deemed to be a representative of the quantity from which it has been obtained.

Obtaining a working sample

13. A working sample shall be obtained by dividing the representative sample taken in accordance to item 12 with a hand in order to obtain a fraction of just more than 1 kg of material.

Deviating sample

14. If an inspector should notice during the process of drawing the random samples or during the inspection that any of the quantities of in-shell pecan nuts taken from any part of the consignment are obviously inferior to or differ from the samples abstracted from the remainder of the containers, he or she shall base the inspection result only on the samples abstracted from the container of the deviating portion and further samples required for inspection shall be drawn from the deviating portion.

INSPECTION METHODS

Assessment of containers, packaging and presentation of in-shell pecan nuts

15. An inspector shall visually examine the consignment and the sample from the consignment to determine if the containers, packaging and presentation comply with the prescribed requirements.

Verification of markings

16. An inspector shall visually examine the containers in the consignment and the sample from the consignment to verify compliance to the marking requirements by --

    (a) satisfying him or herself whether the containers are marked as prescribed; and

    (b) checking the accuracy of the declarations during inspection.

Verification of biological and chemical contamination

17. An inspector shall verify compliance to the levels of biological and chemical contaminations by sampling and submitting samples for analysis of only certain consignments according to a risk based plan.

Determination of adhering hull, split or broken shells, worm holes, mould and insects

18. A sample referred to in item 13 shall be assessed sensorially or analyzed chemically in order to determine --

    (a) whether it has split or broken shells;

    (b) whether it has worm holes;

    (c) whether it has mould;

    (d) whether it has adhering hull;

    (e) whether it has mould and an unacceptable smell;

(f) whether it contains any poisonous substances that render the pecan nuts unsuitable for human consumption or for processing into healthy food or feed;

(g) whether it contains any insects; and

(h) whether it may contain declared plant injurious organisms of phytosanitary importance.

Determination of loose, extraneous and foreign matter

19. The loose, extraneous and foreign matter of a quantity of in-shell pecan nuts shall be determined as follows:

(a) Prepare a working sample by measuring off from a portion of at least 1000g from the fraction referred to in item 12.

(b) Remove and weigh the loose, extraneous and foreign matter in the sample and express this as a percentage of the weight of the working sample.

(c) Such a percentage will represent the percentage loose, extraneous and foreign material in a consignment.

Determination of size group

20. The nut size of a quantity of in-shell pecan nuts shall be determined as follows:

(a) Prepare a working sample of 1000g (as close as possible) after all loose, extraneous and foreign matter has been removed.

(b) Do a count of all the nuts in the 1000g sample to get to a count per 1kg.

(c) Such a number will represent the number of nuts per kilogram as indicated in the size classification (item 5).

Determination of homogeneous nuts

21. The homogeneous nut size of a quantity of in-shell pecan nuts shall be determined as follows:

(a) Prepare a working sample of 100 nuts after all loose, extraneous and foreign matter has been removed and determine the weight of the sample.

(b) Remove the 10 smallest nuts from the sample and weigh these 10 nuts.

(c) Express the weight of the 10 nuts as a percentage of the weight of the 100 nuts sample. Such a percentage should be above 7% in order to indicate homogeneous nut size in a sample.

Determination of sound kernels recovery (SKR)

22. The sound edible kernels of a quantity of in-shell pecan nuts shall be determined as follows:

(a) Prepare a working sample of 500g (as close as possible) nuts after all loose, extraneous and foreign matter has been removed and determine the weight of the sample.

(b) Put all these nuts, one by one, through a nut sample cracker and remove all the shells by hand.

(c) Segregate all the sound edible kernels form the unsound edible kernels and weigh each separate from each other.

(d) Express the weight of the sound kernels as a percentage of the original 500g sample

(e) Such percentage represents the sound kernel recovery (SKR) in the consignment concerned.

Determination of shrunken, shriveled, or underdeveloped kernels

23. The percentage of shrunken, shrivelled or underdeveloped kernels is determined as follows:

(a) Obtain a working sample of kernels (from the sample used in item 21) of at least 200g.

(b) Sort the working sample in such a manner that the shrunken, shrivelled or underdeveloped kernels are retained.

(c) Determine the mass of the shrunken, shrivelled or underdeveloped kernels so obtained in the working samples, and expresses it as a percentage of the mass of the working sample.

(d) Such percentage represents the percentage of shrunken, shrivelled or underdeveloped kernels in the consignment concerned.

Determination of rancid, decay, mouldy or insect damaged kernels

24. The percentage of rancid, decay, mouldy or insect damaged kernels is determined as follows:

(a) Obtain a working sample of kernels (from the sample used in item 21) of at least 200g.

(b) Sort the working sample in such a manner that the rancid, decay, mouldy or insect damaged kernels are retained.

(c) Determine the mass of the rancid, decay, mouldy or insect damaged kernels so obtained in the working sample, and express it as a percentage of the mass of the working sample.

(d) Such percentage represents the percentage of rancid, decay, mouldy or insect damaged kernels in the consignment concerned.

Determination of the moisture content

25. The kernel moisture content of a consignment of pecan nuts may be determined according to any suitable method: Provided that the results thus obtained are in accordance (±0, 3 percent) with the results obtained by means of 72 hour oven dried method (AACC Method 44/15A/1981)

Determination of container weight

26 The average nett weight of the containers that is used in the sampling process must be equal or exceed the net weight, mentioned on the container, or the container nett weight mentioned on the inspection sheet.

NOTIFICATION OF REJECTED CONSIGNMENTS

27. An exporter shall inform the Directorate: Food Safety and Quality Assurance in writing immediately about any rejections by the government of the importing country and shall furnish the following information:

(a) Name of importing country.

(b) Name and particulars of inspection agent that rejected the consignment.

(c) Reasons for rejection and actions taken (re-export/destroyed).

(d) Lot number.

(e) Name and address of exporter.

(f) Particulars of RSA processor.

ANNEXURE

TABLE 1

MAXIMUM PERCENTAGE PERMISSIBLE DEVIATIONS IN PECANS SHELLS AND KERNELS

Defects Allowed	**Tolerance allowed** (percent)/ by count	
	Class I	**Class II**
Total tolerance for pecans shells not satisfying the minimum requirements, of which no more than:	10	15
Adhering Hull	5	10
Split/Broken Shells	5	10
Worm Holes (worms not present)	3	5
Mould	1	2
Total tolerance for stained shells	5	20
	Tolerance allowed (percent) / by weight	
Loose, foreign, extraneous material (by weight)	0.5	0.5
Total tolerances for pecan kernels; not satisfying the minimum requirements of which no more than:	10	24
Shrunken, shriveled, or underdeveloped	7	10
Rancid, decay, mouldy or injured by insects	6	7

TABLE 2

FREQUENCY OF SAMPLING IN THE CASE OF RETAIL PACKAGING

Total number of outer containers in a consignment	Number of outer containers to be sampled
1	2
1- 200	3
201- 800	5
801- 2 400	7
2 401- 4000	10
4001- 8000	15
8 001- 24 000	20
24 001 and more	25

TABLE 3

FREQUENCY OF SAMPLING IN THE CASE OF CONTAINERS

Total numbers of containers in a consignment	Number of containers to be sampled
1	2
1-25	3
26- 100	5
101- 300	7
301- 500	10
501- 1 500	15
1 501 - 3 000	20
3 001 and more	25