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ECONOMIC COMMISSION FOR EUROPE

COMMITTEE FOR TRADE, INDUSTRY AND  
ENTERPRISE DEVELOPMENT

Working Party on Standardization of  
Perishable Produce and Quality Development

Specialized Section on Standardization of  
Dry and Dried Produce (Fruit)  
Forty-eighth session, 18 to 21 June 2001, Geneva

Item 7 of the Provisional Agenda

ELABORATION OF A SAMPLING PLAN

Transmitted by the United States

**Note by the secretariat:** At the last session the delegation of the United States offered to prepare documents for sampling procedures and a sampling plan. All delegations were invited to provide information to the United States on what they expected from a sampling plan/procedure and how sampling was done at the moment.

**UN/ECE SAMPLE PLAN FOR  
WALNUTS INSHELL AND WALNUT KERNELS**

A sample is defined as that unit taken to represent a designated portion of a lot and is added to other samples from that lot to form a composite from which a quality grade can be determined.

When drawing a composite sample, observe the general appearance of the commodity in each container sampled. If the commodity in any single container or number of containers appear distinctly different in quality from those in the majority of the lot, they should be inspected separately and reported on separate work sheets. The inspector should inspect those containers separately as a different lot.

No lot should be more than 22,727.28 Kgs

**CONTAINER OR WAREHOUSE STOCK**

<b>Units in Lot (cartons, etc.)</b>	<b>Units Sampled</b>	<b>Pallets of Bulk Bags</b>
5	3	1-5 Pallets - 2 bulk bags/pallet
10	4	
25	5	
50	8	5 + pallets - 1 bulk bag/pallet
75	9	
90	10	
100 or more	Square root of the number of units.	

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Sampling bulk bags (5 Kg or heavier), cases, bins, barrels, etc. will be performed with scoop, trier or other acceptable industry sampling device. Retail visible packages will be sampled from their fiber cases as sub samples for the total sample drawn for the lot. Once the total sample has been drawn the visible bags will then be opened and thoroughly mixed with the total sample for lot grade. Samples will be drawn from the top, middle and bottom of the container. Any deviation from this format must noted on the worksheet with reason for the departure.

Shipping containers inspected for grade will be completely emptied of the walnut commodity in preparation for the sampling process. The shipping container of walnut commodity will be staged to allow random access sampling according to the sampling procedure outlined above. The walnut commodity will be placed on pallets to accommodate the sample plan. Once the number of samples have been determined then the pallets may be marked, at random, to indicate which pallets will be sampled. The inspector will mark each sampled bag, case, etc. with sample date, agency and inspector's initials.

Examples of sampling Inshell Walnuts and Shelled Walnuts would be as follows:

One container of 20,000 Kg 800 bags of 25 Kilo grams each. Eight Hundred (800) bags of 25 bags per pallet would equal 32 pallets of product for the container. One bag per pallet would be taken for sampling from each of the 32 pallets in preparation for the grading process.

The composite sample should be drawn several times larger than the amount required for analysis. Composite size should be no less than 4.54 Kilogram of product that has been thoroughly randomized. The composite for each test should be thoroughly mixed either by mechanical mixer or by pouring the nuts from one container into another. No lot will be more than 22,727.28 Kgs.

A 100 nut count tray will be utilized in grading inshell walnuts (for external and internal defects) utilizing lots of 4,536 Kg. The sampling of one shipping container will result in at least four trays of 100 count inshell walnuts graded externally and internally for defects. Sample trays will be averaged for grade for the lot or container.

Shelled walnuts will be graded using 200 gram samples drawn from a composite sample of no less than 4.54 Kilogram. Samples will be drawn using the square root method, however, where the pallets of product number less than the square root number of cases then the number of pallets will prevail and one case from each pallet will be sampled by removing approximately 150 to 200 grams of product to be composited in a total sample. From the total composite sample 5 (five) 200 gram samples will be drawn and analyzed for grade. All five samples will be averaged to determine the grade for the shelled walnut product.

Walnuts Inshell and Walnut Kernels will be graded according to the UN/ECE Standards for Grade for that commodity. If a UN/ECE Standard was not agreed upon for the commodity then the commodity will be graded according to industry standards or standards of sale (agreement between buyer and seller). All lots tested will be marked by the inspection agencies inspector using their standard control numbers or marks. If a container has several different products then each product will be tested as an individual lot using the sample plan as outlined.