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Indian Standard

**METHOD FOR
SAMPLING GREEN COFFEE IN BAGS**

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Indian Standard

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Indian Standard

METHOD FOR SAMPLING GREEN COFFEE IN BAGS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 29 February 1984, after the draft finalized by the Stimulant Foods Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 This standard is intended to assist in sampling of consignment of green coffee traded within the country and for export based on scientific and statistical principles. This standard is partially based on ISO 4072-2 'Green coffee in bags — Sampling' published by the International Organization for Standardization, with regard to terminology.

0.3 It is hoped that this standard would help in uniform and representative sampling of the consignment of green coffee which is a prerequisite for determination of its quality.

1. SCOPE

1.1 This standard specifies a method of sampling a consignment of green coffee.

2. TERMINOLOGY

2.0 For the purpose of this standard, the following definitions apply.

2.1 Consignment — The quantity of green coffee in bags dispatched or received at one time and covered by a particular contract or shipping document. It may be composed of one or more lots.

2.2 Lot — A part of a consignment or a consignment presumed to be of uniform characteristics, consisting of not more than 500 bags of the same type, with the same marks and mass, containing green coffee assumed to have common properties of reasonably uniform character and to which a given scheme of examination can be applied.

2.3 Damaged Lot — A part of a consignment constituted for separate examination, incorporating the existing damaged bags of the same type, with the same marks and mass and containing green coffee assumed to be of the same type.

2.4 Damaged Bags — Bags which are torn, stained, soiled or otherwise detectably contaminated, indicating possible damage to the coffee contained in them.

2.5 Sample — A part of a lot, from which the properties of the lot are to be estimated by examination.

2.6 Increment Primary Sample — The quantity of 30 ± 6 g of green coffee beans taken from a single bag of a specific lot.

2.7 Bulk Sample — The quantity of not less than 1 500 g of green coffee beans obtained by combining all the increments (*see also 2.6*) taken from bags of specific lot.

2.8 Gross Sample — The quantity of green coffee bean obtained by combining and blending all the increments (*see also 2.6*) taken from bags of a specific lot.

2.9 Laboratory Sample — The quantity of not less than 300 g of green coffee beans removed from the gross sample (*see also 2.8*) of a specific lot.

3. PRINCIPLE OF THE METHOD OF SAMPLING

3.1 The method specified follows an established scheme based on experience.

4. APPARATUS

4.1 Coffee Trier — A special device for removing coffee through the wall without opening the bag.

5. SAMPLE CONTAINERS AND PACKAGES

5.1 The containers and packages intended for collecting samples shall be clean and shall be made from materials which will not affect the odour, flavour or composition of the samples.

5.2 They shall be sufficiently robust to withstand hazards during transport by the chosen method and shall have the ability to preserve the samples unchanged for the appropriate period.

6. PROCEDURE

6.1 Taking Increments

6.1.1 The number of bags to be selected from the lot for the purpose of taking increments shall be as given below:

<i>No. of Bags in the Lot</i>	<i>Sample Size</i>
Up to 100	10
101 ,, 200	15
201 ,, 300	20
301 ,, 500	25

6.1.2 The increments shall be taken at random from individual bags from different locations on the pile, using the coffee (*see 4.1*). Each bag should preferably be sampled at three different points.

6.1.3 More than one increment may be taken from each bag sampled, if this is necessary, in order to obtain a bulk sample of 1 500 g (*see 2.7*).

6.2 Preparation of Samples

6.2.1 Bulk Sample — Examine the increments as they are taken. If they are evidently homogeneous. Combine them in a container. Label the bulk sample obtained (*see 7*).

6.2.1.1 Samples taken from damaged bags shall not be included in the bulk sample.

NOTE — If there is a noticeable lack of uniformity among any of the increments, keep them separate and report this condition in the sampling report (*see 7.2*).

6.2.2 Gross Sample — Remove the bulk sample (**6.2.1**) from its container and thoroughly mix it.

6.2.3 Laboratory Samples — Prepare each laboratory sample by removing a quantity of not less than 300 g from the gross sample (**6.2.2**). Package and label each laboratory sample obtained (*see 7*).

6.2.3.1 For the purpose of preparing the laboratory sample of not less than 300 g, the procedure coning and quartering shall be used. The material in the gross sample shall be heaped into the shape of a cone by pouring one scoopful of the material after another at the apex of the cone till the entire gross sample has been coned. The material shall be allowed to slide down the sides of cone only under the influence of gravity. Flatten the cone evenly so that it forms a low circular pile. Cut the pile into the four quarters along two diameters which intersect at right angles. Retain one pair of opposite quarters and reject the other. Repeat till the size of the retained sample is reduced to the required weight of the laboratory sample.

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7. PACKING, SEALING AND MARKING OF SAMPLES OR SAMPLE CONTAINERS AND PACKAGES

7.1 Filling and Sealing of Sample Containers and Packages — Sample containers and packages, together with their corresponding closure systems (*see* 5) shall be dry.

7.1.1 Samples intended for the determination of moisture content or for any other test liable to be influenced by an alternation of moisture content, shall be packed in HDPE bags, sealed and then padded in moisture-proof containers fitted with air-tight closures. The containers, in this case, shall be completely filled with green coffee so as to prevent loss or alternation of the contents.

7.2 Marking : Sampling Report — The samples shall be identified by recording the following information on the container or package, or on a label affixed to the container or package, unless otherwise specified:

- a) Date
- b) Name of sampler and his employer
- c) Shipping document or contract No.
- d) Ship (or other transport vehicle)
- e) Location
- f) Identifying marks and numbers (including the origin of the coffee)
- g) Quantity
- h) Mass of the sample
- j) Sampler's comments (these may be added either on the label or in a separate document).

8. PRECAUTIONS DURING STORAGE AND TRANSPORT OF SAMPLES

8.1 Laboratory samples shall be despatched to the place of examination as soon as possible after preparation and only in exceptional circumstances more than 48 h after preparation, non-business days excluded.

A copy of the sampling report (*see* 7.2) shall be attached to them.

8.2 After taking the laboratory samples, the rest of the blender bulk sample from each lot shall be retained in a container labelled in accordance with 7.2, for further use if necessary (inspection, etc) until final acceptance of the consignment by the purchaser.