SRI LANKA STANDARD 697 : 1985

UDC 633.73

SPECIFICATION FOR

GREEN COFFEE

SRI LANKA STANDARDS INSTITUTION

(Attached AMD 109)

Gr. 6

SRI LANKA STANDARD
SPECIFICATION FOR GREEN COFFEE

FOREWORD

This Sri Lanka Standard was authorized for adoption and publication by the Council of the Sri Lanka Standards Institution on 1985-06-26, after the draft, finalized by the Drafting Committee on Coffee, had been approved by the Agricultural and Food Products Divisional Committee.

This specification is subject to the provisions of the Food Act No. 26 of 1980 and the regulations framed thereunder.

All standard values given in this specification are in SI units.

For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated, expressing the results of a test or analysis, shall be rounded off in accordance with SLS 102. The number of significant places retained in the rounded off value should be the same as that of the specified value in this specification.

In the preparation of this specification, the assistance obtained from the publications of the International Organization for Standardization is gratefully acknowledged.

1 SCOPE

This specification prescribes the requirements, methods of sampling and test for green coffee.

2 REFERENCES

SLS 102 Presentation of numerical values

SLS 428 Random sampling methods

SLS 809 Recommended shipping marks for goods

ISO 1447 Green coffee - Determination of moisture content.

3 DEFINITIONS

For the purpose of this specification the following definitions shall apply:

3.1 green coffee ; coffee beans: Commercial term designating the dried seed of the coffee plant *Coffea arabica Linnaeus* (Arabica Coffee), *Coffea Canephora* (Robusta Coffee) and other hybrid species.

NOTE - Green coffee (so called) is not necessarily green in colour.

3.2 foreign matter: Mineral, animal or vegetable matter not originating in the coffee berry (Coffee berry is also known as coffee cherry).

3.3 triage: Defective beans (see 3.4) and impurities originating in the coffee berry.

3.4 defective beans

3.4.1 broken bean: Fragment of a coffee bean of volume equal to or greater than half a bean.

3.4.2 malformed bean: Coffee bean whose abnormal shape makes it clearly distinguishable.

3.4.3 insect-damaged bean: Coffee bean damaged internally or externally by insect attack.

3.4.4 black bean: Coffee bean of which more than one-half of the external surface is black.

3.4.5 immature bean: Unripe coffee bean of greenish or greyish colour and often with a wrinkled surface.

3.5 mouldy bean: Coffee bean showing mould growth or evidence of attack by mould visible to the naked eye.

4 GRADES

Green coffee shall be of the following 3 grades;

a) Grade 1;

b) Grade 2; and

c) Grade 3.

5 REQUIREMENTS

5.1 Green coffee shall be free from commercially objectionable odour and insect infestation when examined as prescribed in Appendix B.

5.2 Green coffee shall not contain pesticide residues in excess of the limits laid down under the Food Act No. 26 of 1980.

NOTE - It is not necessary to carry out this determination as a routine for all the samples. This should be tested in case of dispute and when required by the purchaser or vendor.

5.3 Green coffee shall also conform to the requirements specified in Table 1 when tested by relevant methods given in Column 6 of the table.

TABLE 1 - Requirements for green coffee

Sl. No.	Characteristics	Grades			Methods of test (ref.) to Appendix
		1	2	3	
(1)	(2)	(3)	(4)	(5)	(6)
i	Moisture, per cent by mass, max.	16.0	16.0	16.0	A
ii	Foreign matter, per cent by mass, max.	1.0	2.0	2.0	C
iii	Mouldy beans, per cent by mass, max.	1.5	4.0	6.0	C
iv	Triage, per cent by mass, max.	10	25	40	C

6 PACKAGING AND MARKING

6.1 Packaging

Green coffee shall be packed in new, clean and sound jute or polypropylene bags or any other suitable container. The mouth of each bag shall be securely sealed.

The net mass of a package shall preferably be 60 kg.

6.2 Marking

Each bag shall be marked legibly and indelibly or a label shall be attached to the bag, with the following information.

a) Name of commodity;

b) Grade;

c) Registered code number (ICO number);

d) Net mass in kg; and

e) Country of origin.

The marking shall also conform to the regulations of ICO (International Coffee Organization).

7 SAMPLING

7.1 Lot

The entire quantity of green coffee, indicated to be of same grade, offered for inspection at one time at one place and covered by a particular contract or shipping document shall constitute a lot.

7.2 General requirements of sampling

In drawing, preparing and handling the samples the following precautions and directions shall be observed.

7.2.1 Sampling shall be carried out in a protected place in such a manner as to protect the samples, sampling instrument, and containers in which the samples are placed from adventitious contamination.

7.2.2 The sampling instrument shall be clean and dry when used.

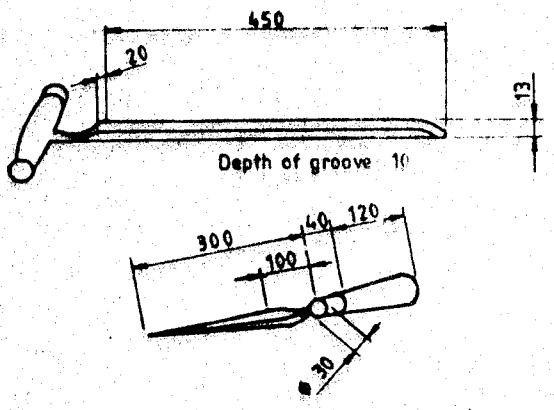
7.2.3 The samples shall be placed in clean, dry containers.

7.2.4 Each container after filling shall be sealed securely to prevent the deterioration of the quality of the product and it shall be closed in such a way that it will not be possible to open and reseal without detection. Each container shall be marked with necessary details of sampling.

7.3 Apparatus

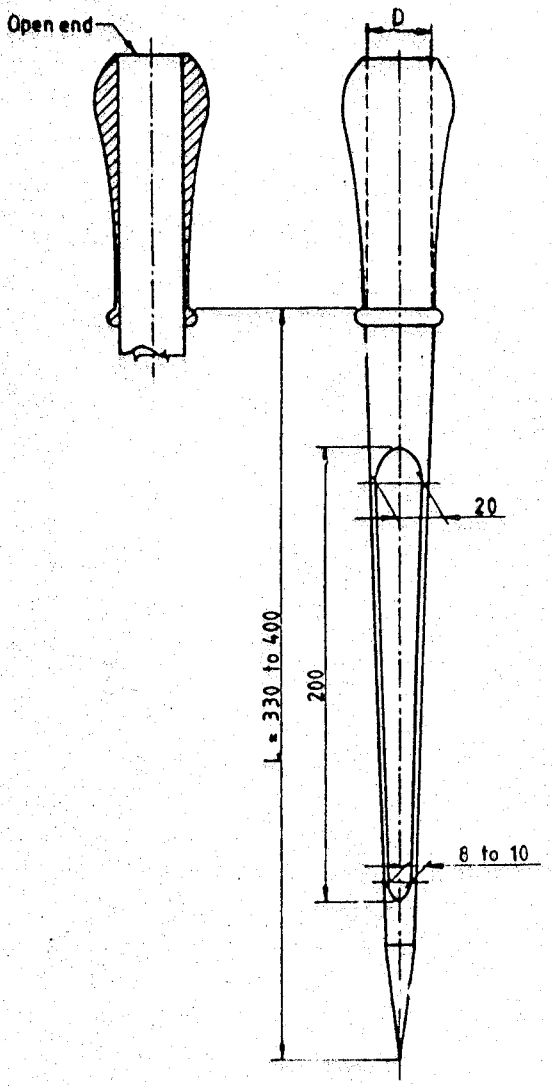
The following sampling apparatus or any other suitable apparatus may be used.

7.3.1 *Sack type spears* (See Fig. 1) or *triers* (See Fig. 2).



(Dimensions in millimetres)

FIGURE 1 - Sampling spear



(Dimensions in millimetres)

FIGURE 2 - Model of a trier

7.3.2 *Dividing instrument.* (see Fig. 3).

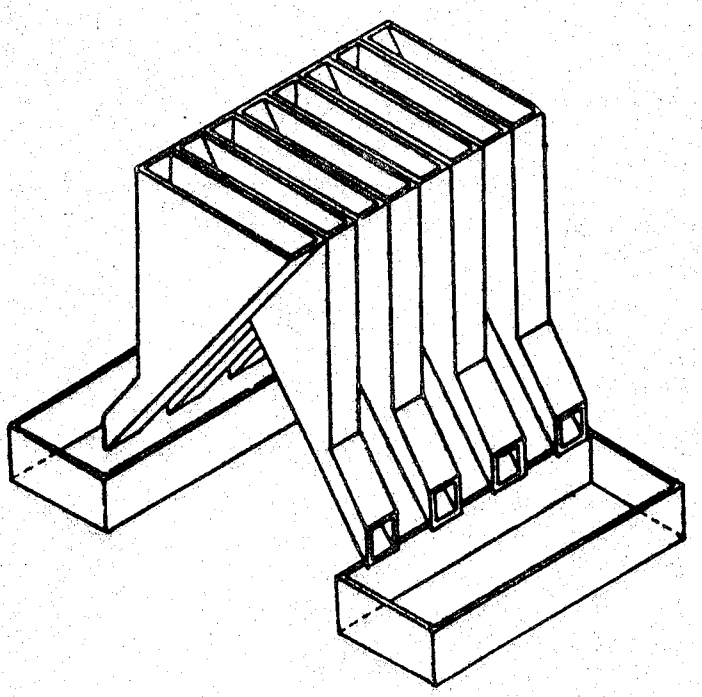


FIGURE 3 - Multiple-slot divider

NOTE - Many different types and variations are available. The dimensions given in the figures are included therefore solely as a guide.

7.4 Scale of sampling

7.4.1 Each lot shall be tested separately to ascertain its conformity to the requirements of this specification.

7.4.2 The number of bags to be selected from the lot shall be in accordance with Table 2.

TABLE 2 - Scale of sampling

Number of bags in the lot (1)	Number of bags to be selected (2)
Up to 5	All
5 to 49	5
50 to 100	10% of the bags
101 and above	The square root of the number of bags, rounded to the nearest integer

7.4.3 The bags shall be selected at random. In order to ensure randomness of selection, random number tables as given in SLS 428 shall be used.

7.5 Preparation of samples

7.5.1 Equal quantities of material shall be drawn from top, middle and bottom portions of each container selected as in 7.4.2 using an appropriate sampling instrument. The material thus obtained shall be mixed to form a composite sample.

7.5.2 The size of the composite sample shall be more than three times the quantity of the sample required to carry out all the tests.

7.5.3 If the composite sample is much larger than the required size, its size shall be reduced by the dividing instrument (see 7.3.2) or by the method of coning and quartering as described below. Spread the composite sample on a level, clean, hard surface, flatten it out and divide it into four equal parts. Remove any diagonally opposite parts. Mix the two remaining parts together to form a cone. Flatten out the cone, and repeat the operation of quartering till a composite sample of required mass is obtained.

7.6 Test sample and reference sample

7.6.1 The composite sample shall be divided into three equal parts. Each of these samples shall constitute the test sample.

7.6.2 Each test sample shall be immediately transferred to a suitable container and marked with necessary details of sampling.

7.6.3 One sample so obtained shall be marked for the buyer, another marked for the supplier and third sample shall constitute the reference sample to be used in case of dispute.

7.6.4 The size of the test sample shall not be less than 500 g.

7.7 Number of tests

The test sample prepared as in 7.6, shall be tested for all the requirements of this specification.

8 METHODS OF TEST

Tests shall be carried out as prescribed in ISO 1447 and the appropriate appendices.

9 CONFORMITY TO STANDARD

A lot shall be declared as conforming to the requirements of this specification if the sample tested as in 7.7 satisfies the relevant requirements.

APPENDIX A

DETERMINATION OF MOISTURE

Either of the following methods may be used.

A.1 OVEN METHOD

Carry out the tests as prescribed in ISO 1447.

A.2 MOISTURE METER METHOD

a) Suitable moisture meter shall be previously callibrated;

b) Whole, clean coffee beans shall be used;

c) Take a sample of adequate size;

d) Read off the moisture content to the nearest 0.1 unit; and

e) Carry out three determinations and report the value as the average of the three readings.

APPENDIX B

VISUAL EXAMINATION

Examine the test sample as a whole for its general conditions including odour and pest infestation.

Report whether the sample is clean, dry and in sound marketable condition.

APPENDIX C

DETERMINATION OF FOREIGN MATTER, MOULDY BEANS AND TRIAGE

Take 100 g of the test sample weighed to the nearest 0.1 g. Spread the beans and separate foreign matter (3.2), mouldy beans (3.5) and triage (3.3). Weigh each fraction to the nearest milligram and calculate the percentage of each by mass. Carry out three determinations using 100 g test portions taken from the same test sample.

Report the values as the average of the three readings.

AMENDMENT NO. 1 APPROVED ON 1988-08-25

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Clause 2 - REFERENCES

Include the following:

SLS 809 Recommended shipping marks for goods

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Clause 6.2 - Marking

Substitute the existing clause with the following:

6.2 Marking

6.2.1 Each bag shall be marked legibly and indelibly or a label shall be attached to the package, with the following information; except for packages intended for export where marking shall be in accordance with 6.2.2.

a) Name of the product;

b) Type/Grade;

c) Trade name, if any;

d) Batch or code number, if any;

e) Net weight in grams or in kilograms; and

f) Name and address of the producer or trader.

6.2.2 Marking on bags intended for export shall be in accordance with SLS 809. In addition to the standard shipping marks stipulated in SLS 809, the following information marks shall be given on each bag.

a) Name of the product; and

b) Grade designation.

SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

Printed at the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.

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The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI *which includes surveillance inspection of the factory, testing of both factory and market samples.*

Further particulars of the terms and conditions of the permit may be obtained from the Sri *Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*

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