SRI LANKA STANDARD 669:1984
UDC 633.3

SPECIFICATION FOR
SOYA BEAN, WHOLE

SRI LANKA STANDARDS INSTITUTION

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SLS 669:1984

Gr. 5

SRI LANKA STANDARDS INSTITUTION
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Sri Lanka

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This standard does not purport to include all the necessary provisions of a contract.

SRI LANKA STANDARD

SPECIFICATION FOR SOYA BEAN, WHOLE

FOREWORD

This Sri Lanka Standard was authorized for adoption and publication by the Council of the Sri Lanka Standards Institution on 1984-12-20, after the draft, finalized by the Drafting Committee on Subsidiary Food Crops, 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.

The standard values used throughout this specification are given in SI units.

In reporting the result of a test or an analysis made in accordance with this specification, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with CS 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 Food Corporation of India is gratefully acknowledged.

1 SCOPE

1.1 This specification prescribes the requirements and methods of sampling and test for whole seeds of soya bean (*Glycine max.* (L). Merr) (*S. SOYA BONCHI, T. SOYA AVARAI*).

2 REFERENCES

CS 102 Presentation of numerical values
SLS 428 Random sampling methods
SLS 448 Analysis of food grains
Part 1 Moisture
Part 2 Refractions
Part 4 Mass of 1 000 grains
SLS 528 Sampling of food grains

3 DEFINITIONS

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

3.1 soya bean : Whole seeds of *Glycine max* (L). Merr.

3.2 damaged grain : Seeds which are distinctly identified as having been visibly affected by insects or other pests, heat, water, disease or any causative agent. This includes grains that are damaged or split in the process of handling.

3.3 immature grain : Seeds which are not fully developed, normally smaller in size than the mature grain of the variety tested, shrivelled and/or greenish in colour.

3.4 objectionable odour : Odours which are entirely foreign to soya bean and which, because of their presence, render soya bean unfit for its normal commercial usage.

3.5 pest infestation : Presence of live insects or other organisms or their eggs and/or other developmental stages and/or rodent contamination.

3.6 foreign matter : All matter other than soya bean (whether whole or broken). Foreign matter includes such things as sand, stones, seeds of weed, stalks, fibrous matter, insect debris and dust.

4 TYPES

Soya bean shall be classified into the following types on the basis of the mass of 1 000 grains (Refer SLS 448:Part 4). The basis is as follows:

a) Small, mass of 1 000 grains below 155 g;

b) Large, mass of 1 000 grains 155 g, or above.

5 GRADES

Soya bean shall be classified into the following three grades as prescribed in Table 1.

a) Grade 1,

b) Grade 2, and

c) Grade 3.

6 REQUIREMENTS

6.1 Soya bean shall be free from objectionable odour and pest infestation when examined as prescribed in Appendix A.

6.2 Soya bean shall not contain pesticide residues in excess of the limits laid down under the Food Act No. 26 of 1980 and the regulations framed thereunder.

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.

6.3 Soya bean shall be in the form of well filled seeds of uniform colour.

6.4 Soya bean shall have uniform cooking properties.

6.5 Soya bean 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 soya bean

Sl. No.	Characteristics	Grade			Methods of tests, reference
		1	2	3	
(1)	(2)	(3)	(4)	(5)	(6)
i	Moisture, per cent by mass, max.	12.0	12.0	13.0	SLS 448:Part 1
ii	Foreign matter, per cent by mass max.	0.2	0.5	1.0	SLS 448:Part 2
iii	Type admixture, per cent by mass, max.	1.0	2.0	3.0	Appendix B of SLS 669
iv	Damaged grain, per cent by mass, max.	1.0	2.0	3.0	Appendix B of SLS 669
v	Immature grain, per cent by mass, max.	1.0	2.0	4.0	Appendix B of SLS 669

7 PACKAGING AND MARKING

7.1 Packaging

7.1.1 Soya bean in bulk shall be packed in clean jute bags, woven polypropylene or coarse cloth bags or in any other bags made from suitable material. The mouth of each bag shall be securely sealed.

7.1.2 Soya bean when prepacked for retail trade shall be packed in clean polyethylene bags or in any other suitable material. The mouth of each bag shall be securely sealed.

NOTE - When bags are being re-used, the existing markings shall be crossed out with non-toxic, indelible ink or dye.

7.2 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) Type;

c) Grade;

d) Name and address of the producer or trader;

e) Trade mark, if any;

f) Net mass, in kg;

g) Month and year of harvest; and

h) The words *Produce of Sri Lanka.*

8 SAMPLING

8.1 Sampling from bulk containers

8.1.1 A representative sample of soya bean shall be obtained according to the relevant clauses of SLS 528.

8.2 Sampling from retail packages

8.2.1 *Lot*

8.2.1.1 All the retail packages containing soya bean of one grade and packed at one place from one batch of supply shall constitute a lot.

8.2.2 *Scale of sampling*

8.2.2.1 Samples shall be taken from each lot for ascertaining conformity of the lot to the requirements of this specification.

8.2.2.2 The number of retail containers to be selected from a lot shall be in accordance with Table 2.

TABLE 2 - Scale of sampling

Number of retail containers in the lot	Number of containers to be selected
Up to 50	03
51 to 100	05
101 to 150	08
151 to 300	13
301 to 500	20
501 to 1 000	32
1 001 to 5 000	50
5 001 to 10 000	80

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

8.2.2.4 The bags selected as in 8.2.2.2 shall be emptied on a flat and hard surface and thoroughly mixed. The material shall be reduced by means of successive coning and quartering method to get a composite sample of required size.

8.3 **Number of tests**

The composite sample prepared as in 8.2.2.4 or Clause 5.3 of SLS 528 shall be tested for all the requirements of this specification.

9 METHODS OF TEST

9.1 Tests shall be carried out as prescribed in SLS 448 and the appropriate appendices of this specification.

10 CONFORMITY TO STANDARD

10.1 A lot shall be declared as conforming to the requirements of this specification, if the composite sample tested as in 8.3 satisfies the relevant requirements.

APPENDIX A

VISUAL EXAMINATION

A.1 PROCEDURE

A.1.1 Take about 500 g of the test sample, examine as a whole, as given in SLS 448:Part 2 for its general conditions including odour and pest infestation, and report whether the sample is wholesome, clean, dry and in sound marketable condition. Examine the sample for any deleterious material, hazardous to human health and/or rendering the grain inedible.

APPENDIX B

DETERMINATION OF TYPE ADMIXTURE, DAMAGED GRAIN AND IMMATURE GRAIN

B.1 APPARATUS

B.1.1 *Balance*, of sensitivity 1 mg.

B.1.2 *Magnifying glass*, with a handle of about 75 mm in length and having magnification of 10.

B.1.3 *Forceps*, of about 100 mm in length.

B.2 **PROCEDURE**

B.2.1 Take the test sample, which has been freed from foreign matter (Refer **SLS 448:Part 2**). **Mix** well the sample, and take three, 100 g representative samples weighed to the nearest 0.1 gram. Using each of the samples, visually separate,

a) grain belonging to other types,

b) damaged grain, and

c) immature grain.

B.3 Calculate the percentage of each by mass.

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SRI LANKA STANDARDS INSTITUTION

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