

SRI LANKA STANDARD 1224 : 2002
UDC 635.25

SPECIFICATION FOR
ONIONS (BIG ONIONS)

SRI LANKA STANDARDS INSTITUTION

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SLS 1224 : 2002

Gr. 5

**SRI LANKA STANDARDS INSTITUTION
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Sri Lanka**

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**SRI LANKA STANDARD
SPECIFICATION FOR ONIONS (BIG ONIONS)**

FOREWORD

This standard was approved by the Sectoral Committee on Agriculture and Food Products and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2002-04-11.

During the formulation of this specification due consideration has been given to the relevant provisions made under the Sri Lanka Food Act No. 26 of 1980. Specific requirements given in this specification, wherever applicable, are in accordance with the relevant regulations. However general provisions made under the Sri Lanka Food Act have not been included in this specification and therefore, the attention of the user of this specification is drawn to the general provisions made in the regulations framed under the Food Act.

In this specification quality grades of the product are categorized based on physical and sensory quality parameters through visual inspection. However, inspection authorities may use cut tests and moisture determination methods to evaluate quality more objectively in case of a necessity.

Guidelines for the determination of a compliance of a lot with the requirements of this standard based on statistical sampling and inspections are given in Appendix A.

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 an analysis, shall be rounded off in accordance with **CS 102**. The number of significant places to be retained in the rounded off value shall be the same as that of the specified value in this specification.

In the preparation of this standard, the assistance derived from the following publications are gratefully acknowledged:

EC Marketing Standard for Onions

CNS 821 N 1010 Chinese National Standard for Grades and Packing of Onion.

1 SCOPE

This specification prescribes the requirements and gradings for onions grown from varieties (cultivars) of *Allium cepa*, L.

2 REFERENCES

- ISO 874 Fresh fruits and vegetables - sampling
- CS 102 Presentation of numerical values
- SLS 143 Code of practice for general principles of food hygiene
- SLS 428 Random sampling methods
- SLS 467 Code of practice for labelling of prepackaged food
- SLS 910 Limits for pesticide residues in food

3 DEFINITIONS

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

- 3.1 onions** : Varieties (cultivars) grown from Allium cepa.L. and its hybrids to be supplied fresh to the consumer.
- 3.2 similar varietal characteristics** : A condition where the onions are alike as to size, shape, firmness and the colour of the bulb.
- 3.3 mature** : A condition where the onions are fully grown with properly sealed necks.
- 3.4 firm** : A condition where the onions are fully grown but not soft.
- 3.5 fairly firm** : A condition where the onions are not being soft.
- 3.6 dry** : A condition where the surface of onion is free from the feeling of wetness and the outer scale of bulb is dry and crisp.
- 3.7 fairly dry** : A condition where the outer scales are not wet, but necessarily fully dried and free from the feeling of wetness at the cut surface.
- 3.8 clean** : A condition where the onions are free from soil and other foreign matter.
- 3.9 sun burn** : A condition where the onions become green due to the prolonged exposure to sun shine.
- 3.10 double bulb** : A condition where many bulbs are fixed together.
- 3.11 broken** : A condition where many bulbs are fixed together but not completely covered by outer scales.
- 3.12 reasonably free from sprouting** : A condition where sprouting is not more than 1 %.

4 GRADES

Big onions shall be of the following grades :

4.1 Size grades; and

4.2 Quality grades.

4.1 Size grades

Big onions shall be of the following size grades :

4.1.1 Extra large ;

4.1.2 Large;

4.1.3 Medium; and

4.1.4 Small.

4.2 Quality grades

Big onions shall be of the following quality grades :

4.2.1 Grade A;

4.2.2 Grade B; and

4.2.3 Grade C.

5 REQUIREMENTS

5.1 General requirements

5.1.1 Big onions shall be intact, sound, clean, free of abnormal external moisture and practically free of any visible foreign matter and sufficiently dry for the intended use.

5.1.2 Big onions shall be of characteristic colour, texture, odour and taste specific to the variety and it shall be free from discolouration, spoilage, any foreign smell and or taste.

5.1.3 Big onions shall not contain pesticide residues in excess of the limits as prescribed in **SLS 910**.

5.2 Hygienic requirements

Big onions shall be handled, stored, distributed under hygienic conditions in accordance with **SLS 143**.

5.3 Finished product

5.3.1 Big onions shall conform to size grades as prescribed in **Table 1** according to the transverse diameter.

TABLE 1 - Size grades

Grades (1)	Diameter (mm) (2)	Tolerance (3)
Extra large	110	The amount of over size and under size based on the diameter should not be more than 10%, for all grades.
Large	90 - 110	
Medium	60 - 90	
Small	60 - 35	

5.3.2 Big onions shall conform to quality grades as prescribed in Table 2.

TABLE 2 – Quality grades

Grades (1)	Requirements (2)	Tolerance (3)
A	<p>Big onions shall be of the similar varietal characteristics of the variety.</p> <p>Big onions shall be mature, firm, clean, dry and free from sprouting, or damaged by diseases, insects and damages caused by peeling.</p> <p>Big onions shall be classified to size grades according to 5.3.1.</p>	Big onions in each sample shall be not more than 10% by mass for grade B.
B	<p>Big onions shall be of the similar varietal characteristics of the variety.</p> <p>Big onions shall be mature, firm, dry, reasonably clean and free from sprouting, broken, double bulb or damaged by diseases, insects, sun burn and damages caused by peeling.</p> <p>Big onions shall be classified to size grades according to 5.3.1.</p>	Big onions in each sample shall be not more than 10% by mass for grade C.
C	<p>Big onions shall be of the similar varietal characteristics of the variety.</p> <p>Big onions shall be reasonably mature, firm, fairly dry, reasonably clean and reasonably free from sprouting, broken, or damaged by diseases, insects, sun burnt and damages caused by peeling.</p> <p>Big onions shall be classified to size grades according to 5.3.1.</p>	Big onions in each sample shall be not more than 10% by mass for off grade.

6 PACKAGING AND MARKING

6.1 PACKAGING

6.1.1 Big onions shall be packed in such a way so as to protect the produce properly. The materials used inside the package shall be new, clean, and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps, bearing trade specifications are allowed, provided that the printing or labelling has been done with non-toxic ink or glue. When paper or plastic packages are used, they shall be perforated to allow adequate ventilation.

6.2 MARKING

6.2.1 Each package shall bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside (either printed on the package itself or on a label secured to the fastening).

- a) Name of commodity;
- b) Grade (quality/size)
- c) Name and address of the purchaser or trader (including the country of origin);
- d) Batch or code number;
- e) Net mass, in kilograms; and
- f) Instructions for storage.

6.2.2 General guidelines for marking and labelling as given in SLS 467 shall be followed.

7 METHOD OF TEST

7.1 Big onions shall be observed visually for the requirements prescribed in 5.3.1 and 5.3.2.

ANNEX A COMPLIANCE OF A LOT

The sampling scheme given in this appendix should be applied where compliance of a lot to the requirements of this standard is to be assessed based on statistical sampling and inspection.

A.1 LOT

A stated quantity of goods of same size grade and same quality grade in bulk form or packages of same weight and presented for inspection.

A.2 SCALE OF SAMPLING

A.2.1 In case of goods in packaged form the number of packages to be selected from the lot shall be in accordance with **4.2.1** of **ISO 874**.

A.2.2 In case of goods in bulk form, samples shall be drawn from the lot in accordance with **4.2.2** of **ISO 874**.

A.2.3 Preparation of bulk sample or reduced sample.

A.2.3.1 In case of goods in packaged form equal quantity of goods shall be taken from top, middle and bottom layers of each package selected as in **A.2.1** and mix them together to form a bulk sample. Then the bulk sample shall be reduced to the laboratory sample of the size given in Table 3 of **ISO 874**.

A.2.3.2 In case of goods in bulk form the reduced sample shall be prepared in accordance with **4.3** of **ISO 874**.

A.3 NUMBER OF TESTS

A.3.1 Each package selected as in **A.2.1** shall be inspected for packaging and marking requirements.

A.3.2 The sample prepared as in **A.2.3.1** or **A.2.3.2** shall be visually examined for requirements given in **5.3.2**.

A.3.3 The sample examined as in **A.3.2** shall be examined for each requirements given in **5.3.1**.

A.4 CRITERIA FOR CONFORMITY

A lot shall be declared as conforming to the requirements of this specification if the following conditions are satisfied :

A.4.1 Each package inspected as in **A.3.1** satisfies the relevant requirements.

A.4.2 The test results on each quality parameters when examine as in **A.3.2** shall satisfy the relevant requirements given **5.3.2**.

A.4.3 The test results on size when examine as in **A.3.3** shall satisfy the relevant requirements specified in **5.3.1**.

SRI LANKA STANDARDS INSTITUTION

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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.

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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.

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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.

