
**Fresh common green onions —
Specification and grading**

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Foreword

This Ethiopian Standard has been prepared under the direction of the Technical committee for fruit and vegetable (TC-13) and published by Ethiopian Standard Agency (ESA).

In preparation of this Ethiopian Standard, references have been made to the following:

CD/K/081:2010, Fresh common green onions — Specification and grading, East African Standard.

Codex Stan 193, Codex general standard for contaminants and toxins in food.

Acknowledgement is made for the use information from the above publications.

Fresh common green onions — Specification and grading

1. Scope

This Ethiopian Standard applies to green onions of varieties (cultivars) grown from *Allium fistulosum*, *Allium ascalonicum*, *Allium chinense* and other non-bulbing onion cultivars to be supplied fresh to the consumer, green onions for industrial processing being excluded.

2. Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CES 73, *General standard for pre-packaged foods labeling*.

ES 577, *Recommended code of practice. General principles of Food hygiene*.

ES 929, *Code of practice -food hygiene management*.

ES 1246, *Code of practice for packaging and transport of fruits and vegetable*.

ES ISO 4833, *Microbiology of food and animal feeding stuffs- Horizontal method for the enumeration of microorganisms-Colony-count technique at 30 °C*.

3. Terms and definitions

For the purpose of this standard the following definition shall apply.

3.1

fairly well formed

the onion is not more than slightly curved, angular, crooked, lopsided or otherwise slightly misshapen

3.2

fairly clean

the appearance of the onion is not materially injured by dirt

3.3

damage

any injury or defect which materially affects the appearance, or the edible or shipping quality

3.3.1Seedstems - An onion with a seedstem shall be considered as damaged if the seedstem has been broken at a point other than at the top, or is coarse, fibrous, hollow or soft, or has separated naturally from the sheath or skin. Onions often show flower buds while the seedstem is still tender. Such onions are not objectionable if the flower buds have been removed, or if present, are not noticeably protruding; however, an onion with a seedstem which, after the flower bud has been removed, exceeds the length of the longest leaves of the plant, shall be considered as damaged.

3.3.2Clipping - The tops of onions are sometimes clipped or pinched back to remove discoloured or otherwise injured leaves. An individual plant shall not be considered as damaged when not more than the tips of all the leaves have been clipped or pinched back; or when not more than half the leaves have been clipped or pinched back to a greater extent but not to the extent that the appearance is materially injured; or when the tops of all the onions have been evenly clipped back in accordance with good commercial practice and the designation "Clipped Tops" is specified in connection with the grade.

3.4

well trimmed

the bulb is not broken above the point of root attachment and is practically free from dead, discoloured or slick

outer skins. Fresh, clean, loose skins which do not materially affect the appearance of the individual onion or the bunch are permitted.

3.5

fresh

the tops are not withered or badly wilted

3.6

good green colour

the tops have a normal green colour characteristic of healthy plants. A slight discoloration of the extreme tips and slight scarring caused by thrips are not objectionable.

3.7

diameter

the greatest dimension of the onion taken at right angles to the longitudinal axis

3.8

not badly misshapen

the onion is not badly curved or crooked

3.9

fairly young and tender

the onion is not tough, stringy, or advanced to the stage where the neck is flabby

3.10

serious damage

any injury or defect which seriously affects the appearance, or the edible or shipping quality

3.10.1 Seedstems which are excessively coarse or fibrous shall be considered as serious damage.

3.10.2 Badly broken or badly bruised tops shall be considered as serious damage.

3.10.3 Clipping - The tops of onions are sometimes clipped or pinched back to remove discoloured or otherwise injured leaves. An individual plant shall not be considered as seriously damaged when not more than the tips of all the leaves have been clipped or pinched back; or when not more than half the leaves have been clipped or pinched back to a greater extent but not to the extent that the appearance is seriously injured; or when the tops of all the onions have been evenly clipped back in accordance with good commercial practice and the designation "Clipped Tops" is specified in connection with the grade.

3.11

fairly well trimmed

the bulb is not broken above the point of root attachment and is reasonably free from dead, discoloured or slick outer skins. Fresh, fairly clean, loose skins which do not seriously affect the appearance of the individual onion or the bunch are permitted.

3.12

fairly good green colour

the tops are pale or yellowish green or otherwise slightly discoloured

4. Provisions concerning quality

4.1 General requirements

The purpose of the standard is to define the quality requirements of green onions at the market control stage, after preparation and packaging.

4.2 Minimum requirements

4.2.1 In all classes, subject to the special provisions for each class and the tolerances allowed, the green onions must be:

- a) intact (this requirement does not apply, however, to roots and ends of leaves which may be cut)
- b) sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- c) clean, practically free of any visible foreign matter; however, the roots may have soil adhering to them
- d) fresh in appearance, with wilted or withered leaves removed
- e) practically free from pests
- f) practically free from damage caused by pests
- g) not running to seed
- h) free of abnormal external moisture, i.e. adequately 'dried' if they have been washed
- i) free of any foreign smell and/or taste.

4.2.2 When the leaves are cut, they must be neatly cut.

4.2.3 The development and condition of the green onions must be such as to enable them:

- a) to withstand transport and handling, and
- b) to arrive in a satisfactory condition at the place of destination.

4.3 Classification

Green onions are classified in two classes defined below:

4.3.1 Class I

Class I shall consist of green onions which are fairly well-formed, firm, young and tender, fairly clean, free from decay, and from damage caused by seedstems, roots, foreign material, disease, insects, mechanical or other means. The bulbs shall be well trimmed. The tops shall be fresh, of good green colour, free from damage caused by broken or bruised leaves, or by clipping. When all the tops of the onions have been evenly clipped back in accordance with good commercial practice, they shall be specified as "Clipped Tops" in connection with the grade.

4.3.2 Class II

Class II shall consist of green onions which are not badly misshapen, and which are fairly firm, fairly young and tender, fairly clean, free from decay and from serious damage caused by seedstems, roots, foreign material, disease, insects, mechanical or other means. The bulbs shall be fairly well trimmed. The tops shall be fresh, of fairly good green colour, and free from serious damage caused by broken or bruised leaves, or by clipping. When all the tops of the onions have been evenly clipped back in accordance with good commercial practice, they shall be specified as "Clipped Tops" in connection with the grade.

4.3.3 Unclassified

Unclassified shall consist of onions which are not graded in conformity with either of the foregoing grades. The term "unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

5. Provisions concerning sizing

5.1 Class I

Unless otherwise specified, the over-all length (roots excepted) of the onions shall be not more than 600 mm nor less than 200 mm and the onions shall be not less than 6.35 mm or more than 25 mm in diameter.

5.2 Class II

Unless otherwise specified, the over-all length (roots excepted) of the onions shall be not less than 20 cm and the onions shall be not less than 1 cm or more than one and 1.3 cm in diameter.

5.3 Size designations

The following terms and definitions are provided for describing the diameters of any lot:

- 5.3.1** "Small" means less than 12.7 mm.
- 5.3.2** "Medium" means 12.7 mm to 25.4 mm, inclusive.
- 5.3.3** "Large" means over 25.4 mm.

6. Provisions concerning tolerances

6.1 Quality tolerances

6.1.1 Class I

In order to allow for variations, other than size, incident to proper grading and handling, not more than a total of 10 percent, by count, of the onions in any lot may fail to meet the requirements of this grade, but not more than 5 percent shall be allowed for defects causing serious damage, including not more than 2 percent for onions affected by decay.

6.1.2 Class II

In order to allow for variations, other than size, incident to proper grading and handling, not more than a total of 10 percent, by count, of the onions in any lot may fail to meet the requirements of this grade, including not more than 2 percent for onions affected by decay.

6.2 Size tolerances

For all classes, not more than a total of 10 percent, by count, of the onions in any lot may fail to meet the requirements as to the specified length, minimum diameter or maximum diameter, but not more than 5 percent shall be allowed for any one of the requirements for size.

6.3 Application of tolerances

The contents of individual containers in the lot, based on sample inspection, are subject to the following limitations, provided the averages for the entire lot are within the tolerances specified:

6.3.1 When a tolerance is 10 percent or more, individual containers in any lot shall have not more than one and one-half times the tolerance specified, except that at least one defective and one off-size specimen may be permitted in any container.

6.3.2 When a tolerance is less than 10 percent, individual containers in any lot shall have not more than double the tolerance specified, except that at least one defective and one off-size specimen may be permitted in any container.

7. Provisions concerning presentation

7.1 Uniformity

The contents of each package, or each bundle in the same package must be uniform and contain only green onions of the same origin, variety or type, quality and size (where for this criterion uniformity is prescribed), and appreciably the same degree of development and colouring. The visible part of the contents of each package or bundle must be representative of the entire contents.

7.2 Packaging

The green onions must be packed in such a way as to protect the produce properly. The materials used inside the package must 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 paper or stamps bearing trade specifications is allowed provided the printing or labelling has been done with non-toxic ink or glue.

The packages or bundles for produce presented without package must be free of all foreign matter.

7.3 Presentation

The green onions may be presented as follows: –arranged evenly in the package

- in bundles, whether or not in a package. The bundles in each package should be practically uniform.

8. Marking and labelling

8.1 Consumer packages

The labeling shall comply with the requirements of CES 73, and shall be legibly and indelibly marked with the following:

8.1.1 Nature of produce

If the produce is not visible from the outside, each package shall be labelled as to the name of the produce

and may be labelled as to name of the variety and/or commercial type.

8.2 Non-retail containers

Each package¹ or each bundle presented in bulk must bear the following particulars, in letters grouped on the same side, only for produce presented in a package, legibly and indelibly marked, and visible from the outside: For green onions transported in bulk (direct loading into a transport vehicle) these particulars must appear on a document accompanying the goods, and be attached in a visible position inside the transport vehicle.

8.2.1 Identification

The exporter, packer and/or dispatcher shall be identified by name and physical address (e.g. street/ city/ region/ postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority²

8.2.2 Nature of produce

- "Green onions " if the contents are not visible from the outside

8.2.3 Origin of produce

Country of origin and, optionally, district where grown, or national, regional or local place name.

8.2.4 Commercial specifications

- Class
- Number of bundles (for green onions packed in bundles and presented in a package).

8.2.5 Official control mark (optional)

9. Contaminants

Onions shall comply with those maximum levels for heavy metals and pesticide residue established by the Codex Alimentarius Commission (CODEX STAN 193) for this commodity respectively.

10. Hygiene

10.1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of ES 577, ES 929, and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

10.2 The produce should comply with any microbiological criteria established in accordance with ES ISO 4833.

¹Package units of produce prepacked for direct sale to the consumer shall not be subject to these marking provisions but shall conform to the national requirements. However, the markings referred to shall in any event be shown on the transport packaging containing such package units.

²The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference "packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.

Organization and Objectives

The Ethiopian Standards Agency (ESA) is the national standards body of Ethiopia established in 2010 based on regulation No. 193/2010. ESA is established due to the restructuring of Quality and Standards Authority of Ethiopia (QSAE) which was established in 1998.

ESA's objectives are:-

- ❖ Develop Ethiopian standards and establish a system that enable to check whether goods and services are in compliance with the required standards,
- ❖ Facilitate the country's technology transfer through the use of standards,
- ❖ Develop national standards for local products and services so as to make them competitive in the international market.

Ethiopian Standards

The Ethiopian Standards are developed by national technical committees which are composed of different stakeholders consisting of educational Institutions, research institutes, government organizations, certification, inspection, and testing organizations, regulatory bodies, consumer association etc. The requirements and/or recommendations contained in Ethiopian Standards are consensus based that reflects the interest of the TC representatives and also of comments received from the public and other sources. Ethiopian Standards are approved by the National Standardization Council and are kept under continuous review after publication and updated regularly to take account of latest scientific and technological changes. Orders for all Ethiopian Standards, International Standard and ASTM standards, including electronic versions, should be addressed to the Documentation and Publication Team at the Head office and Branch (Liaisons) offices. A catalogue of Ethiopian Standards is also available freely and can be accessed from our website.

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International Involvement

ESA, representing Ethiopia, is a member of the International Organization for Standardization (ISO), and Codex Alimentarius Commission (CODEX). It also maintains close working relations with the International Electro-technical Commission (IEC) and American Society for Testing and Materials (ASTM). It is a founding member of the African Regional Organization for standardization (ARSO).

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