

**Fresh green beans- Specification**

## TECHNICAL COMMITTEE REPRESENTATION

The following organizations were represented on the Technical Committee:  
Agriculture Food and Fisheries Authority — Horticultural Crops Directorate  
Kenya Flower Council (KFC)  
Kenya Plant Health Inspectorate Service (KEPHIS)  
Ministry of Agriculture, Livestock and Fisheries — State Department of Agriculture  
Rapid Result Agricultural program  
Consumer Information Network  
Institute of Packaging  
Fresh Produce Exporters Association of Kenya  
Kenya institute of food science and technology.  
University of Nairobi-Department of Plant science and crop protection  
AAA growers  
Hortimpact program-SNV  
Society of crop Agribusiness advisors  
Kenya Bureau of Standards — Secretariat

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PUBLIC REVIEW DRAFT

# Fresh green beans-Specification

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**Foreword**

This Kenya standard has been prepared by the Horticultural fresh produce technical committee and is in accordance with the procedures of the Kenya Bureau of standards.

This standard has been developed in recognition of the contribution of the horticultural industry towards the Kenyan Economy. It is expected that the standard will promote trade fair practices, safeguard the health and safety of the consumer and protect the environment.

In the development of this standard reference has been made to the following standards.

UNECE STANDARD FFV-06 BEANS 2010

Acknowledgement is made for the assistance received from these sources.



## Fresh green beans- Specification

### 1 Scope

This Kenya standard applies to beans of varieties (cultivars) grown from *Phaseolus vulgaris* L. and *Phaseolus coccineus* L. to be supplied fresh to the consumer, beans for shelling or 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.

CAC/RCP 53-2003, Code of hygienic practice for fresh fruits and vegetables

EAS 38, Labelling of pre-packaged foods — Specification

ISO 874, Fresh fruits and vegetables – Sampling

ISO 6633, Fruits, vegetables and derived products — Determination of lead content — Flameless atomic

ISO 7558, Guide to the prepackaging of fresh fruits and vegetables

### 3. Application

The standard is to define the quality requirements for fresh green beans after preparation and packaging.

However, if applied at stages after point of sale or following export, produce may show in relation to the requirements of the standard:

- i) a slight lack of freshness and turgidity
- ii) a slight deterioration due to their development and their tendency to perish.

The holder/seller of produce may not display such produce or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity

### 4 Terms and Definitions

In addition to the terms and definitions contained in KS 1559, the following shall apply:

**4.1**

**Clean**

free from dirt, dust, insect stains or other foreign substances

**4.2**

**Stringy**

the beans are over-matured and have become fibrous and sinewy

**4.3**

**damage**

any defect or injury which materially affects the appearance or storage quality of the vegetable

**4.4**

**Fresh**

the pods are not wilted in appearance and the beans are not soft, limp, or shriveled

**4.5**

**Badly misshaped or bent**

the pods are so bent, twisted or otherwise misshapen that appreciable waste is thereby caused in their preparation for use

**5 Quality requirements**

**5.1 Minimum requirements**

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

5.1.1 intact<sup>1</sup>

5.1.2 Sound; produce affected by rotting or deterioration such as to make it unfit for Consumption is excluded

5.1.3 Clean, practically free of any visible foreign matter

5.1.4 Fresh in appearance

5.1.5 Free from parchment (hard endoderm)

5.1.6 Practically free from pests

5.1.7 Practically free from damage caused by pests

5.1.8 Free of abnormal external moisture

5.1.9 Free of any foreign smell and/or taste.

The development and condition of the beans must be such as to enable them:

5.1.10 to withstand transportation and handling

5.1.11 to arrive in satisfactory condition at the place of destination

<sup>1</sup> Due to harvesting of beans (excluding needle beans), a degree of damage is permitted at the stalk end Only according to the tolerances laid down



## 5.2. Classification

Beans are classified in three classes, as defined below:

### (i) "Extra" Class

Beans in this class must be of superior quality. They must be characteristic of the variety and/or commercial type.

They must be:

- a) turgid, easily snapped
- b) very tender
- c) practically straight
- d) stringless.

Seeds, if present, must be small and soft. However, needle beans must be seedless.

They must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

### (ii) Class I

Beans in this class must be of good quality. They must be characteristic of the variety and/or commercial type.

They must be:

- a) turgid
- b) young and tender
- c) practically stringless except in the case of beans for slicing.

Seeds, if present must be small and soft.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a) a slight defect in shape
- b) slight defects in colouring
- c) Slight skin defects.

### (iii) Class II

This class includes beans that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.

They must be:

- a) reasonably tender
- b) free from rust spots in the case of needle beans.

Seeds, if present, should not be too large and must be reasonably soft.

The following defects may be allowed, provided the beans retain their essential characteristics as regards the quality, the keeping quality and presentation:

- c) defects in shape
- d) defects in colouring
- e) skin defects
- f) strings
- g) slight rust spots except in the case of needle beans.

## 6.0 Provisions concerning sizing

Size is determined by the maximum width of the pod measured at right angles to the seam. To ensure uniformity in size, needle beans in the same package shall not exceed:

- a) 6 mm when marked “very fine”
- b) 9 mm when marked “fine”
- c) 12 mm when marked “medium”.

## 7.0 Provisions concerning tolerances

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated.

### 7.1. Quality tolerances

#### (i) “Extra” Class

A total tolerance of 5 per cent, by number or weight, of beans not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

#### (ii) Class I

A total tolerance of 10 per cent, by number or weight, of beans not satisfying the requirements of the class but meeting those of Class II is allowed. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay. No tolerance is allowed for produce affected by *Colletotrichum lindemuthianum* (bean spot disease).

Within this tolerance, a maximum of 5 per cent, by number or weight, may have strings in the case of a variety and/or commercial type that should be stringless.

In addition, a maximum of 15 per cent, by number or weight, of beans (excluding needle beans) may have the stalk and a small section of the narrow part of the neck missing, provided these pods remain closed, dry and not discoloured.

#### (iii) Class II

A total tolerance of 10 per cent, by number or weight, of beans satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay. No tolerance is allowed for produce affected by *Colletotrichum lindemuthianum* (bean spot disease).

In addition a maximum of 30 per cent, by number or weight, of beans (excluding needle beans) may have the stalk and a small section of the narrow part of the neck missing, provided these pods remain closed, dry and not discoloured.

### 7.2 Size tolerances

For all classes (if sized): a total tolerance of 10 per cent, by number or weight, of beans not satisfying the requirements as regards sizing is allowed.

## **8.0 Provisions concerning presentation**

### **8.1 Uniformity**

The contents of each package (or lot for produce presented in bulk in the transport vehicle), must be uniform and contain only headed cabbages of the same origin, variety or commercial type, quality, and size (if sized).

Headed cabbages in Class I must be uniform in shape and colour.

However, a mixture of headed cabbages of distinctly different commercial types and/or colours may be packed together in a package, provided they are uniform in quality and, for each commercial type and/or colour concerned, in origin.

Miniature headed cabbages must be reasonably uniform in size. They may be mixed with other miniature products of different species and origin.

The visible part of the contents of the package (or lot for produce presented in bulk in the transport vehicle) must be representative of the entire contents.

Packages (or lots for produce presented in bulk in the transport vehicle) must be free of all foreign matter.

## **9 Contaminants**

### **9.1 Pesticide residues**

the produce covered by this standard shall comply with the maximum residue limits for pesticides established by the codex alimentarius commission for this commodity

### **9.2 Other contaminants**

The produce covered by this standard shall comply with the maximum levels of the general standard for contaminants and toxins in food and feed(CODEX STAN 193-1995).

## **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 the General Principles of Food Hygiene (KS CAC/RCP 1-1969), Code of Hygienic Practice for Fresh Fruits and Vegetables (KS CAC/RCP 53-2003), and other relevant 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 the Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods (KS CAC/GL 21-1997).

## **11. Packaging**

The package used shall ensure product safety and integrity. The packaging material that is in contact with the produce shall be of food grade, 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 is allowed, provided the printing or labelling has been done with non-toxic ink or glue. Packages shall be free from any foreign matter and the material shall be recyclable

## **12. labeling**

The following information shall be legibly and indelibly marked on the packets containing the produce

- i) Name of the produce i.e “beans” and/or commercial type if the contents are not visible from the outside.
- ii) Class
- iii) Size code:
- iv) for needle beans expressed as “very fine”, “fine”, “medium”
- v) for other beans (if sized) expressed as minimum and maximum width of the pods.
- vi) name and physical address of the importer/packer/distributor;
- vii) country of origin;
- viii) net weight in kilograms;
- ix) identification code and/or batch number
- x) name of the variety or commercial type;
- xi) storage instructions.
- xii) GMO status

## **13. Sampling**

Beans shall be sampled in accordance with the standard KS ISO 874-Fruits and vegetables-Sampling.