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**BELIZE NATIONAL STANDARD
SPECIFICATION FOR ONION**

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The preparation of this standard for the Standards Advisory Council established under the Standards Act of 1992, was carried out under the supervision of the Bureau's Technical Committee for Food and Food Related Products, which at the time comprised the following members:

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0 FOREWORD

- 0.1 This standard is intended to assist traders and consumers of onions *Allium cepa L* in the quality assessment for making sales or purchasing decisions.
- 0.2 This standard was adapted from the Caribbean Community Standard – Specification for Onions, CARICOM Secretariat.

1 SCOPE

- 1.1 This standard applies to commercial varieties of onion grown from *Allium cepa L*. to be supplied fresh to the consumer, after preparation and packaging. Onions for industrial processing are excluded.
- 1.2 It sets out the specifications and describes minimum requirements for the classes and labelling of onions.

2 DEFINITION OF TERMS

For the purpose of this standard, the following terms shall apply:

- 2.1 **Curing** means properly drying newly harvested onions for storage to seal off the neck (tight neck) to prevent the entry of spoilage microorganisms. This process allows the formation of dehydrated layers of protective cover.
- 2.2 **Genetically Modified (GM)** means the deliberate alteration in a laboratory of genes other than by means of true natural breeding.
- 2.3 **Similar varietal characteristics** means that the onions in any lot have the same general shape, and character of skin and flesh colour.

3 QUALITY REQUIREMENTS

3.1 *Minimum Requirements*

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

- (a) Whole;
- (b) Firm;
- (c) Clean, practically free from any visible foreign matter;
- (d) Practically free from bruises;

- (e) Free of holes and other damage caused by pests;
- (f) Free of damaged caused by extremes of temperatures e.g. softness, bruises, etc.
- (g) Free from foreign smell and/or taste;
- (h) Of a shape, flavour and odour characteristic of the variety; and
- (i) Sufficiently developed and display a satisfactory maturity characteristic of the variety.

3.1.1 The development and condition of the onions must be such as to enable them to withstand transport and handling and to arrive in a satisfactory condition at the place of destination.

3.1.2 With regard to the maturing process, the colour may vary according to the variety.

3.2 ***Classification***

Onions are classified into three classes defined below:

3.2.1 **Premium/ “Extra Class”**

Onions in this class must be of a superior quality and must be representative of the variety and/or commercial type.

They must be free from defects, with the exception of very slight superficial defects, provided that these do not affect the general appearance of the produce, the quality and presentation in the package. They must be properly cured so as to maintain a layer of dry outer skin with a tight neck as this affects the keeping quality and presentation of the onion.

3.2.2 **Class I**

Onions in this class must be of good quality and have the characteristics of the variety.

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

- (a) Slight defects in shape or colour;
- (b) Slight defects due to sprouting; and
- (c) Slight defects due to root tufts.

The total surface area affected shall not exceed five percent (5%).

3.2.3 Class II

This class includes onions, which do not qualify for inclusion in the higher class, but satisfy the minimum requirements specified in Section 3.1 above.

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

- (a) Defects in shape and colour;
- (b) Slight bruising unlikely to impair the keeping quality of the product;
- (c) Evidence of shoot growth/sprouting; and
- (d) Presence of root tufts.

The total surface area affected shall not exceed ten percent (10%).

4 PROVISIONS CONCERNING SIZING

Size is determined by the diameter of the central or median part in accordance with the following table:

Table 1: Size Classification

Reference Letter	Minimum Median Diameter
A	70 mm≤
B	60-69 mm
C	50-59 mm
D	40-49 mm
E	30-39 mm
F	20-29 mm
G	10-19 mm

5 PROVISIONS CONCERNING TOLERANCE

Tolerances in respect of quality and size shall be allowed for products not satisfying the requirements of the class indicated.

5.1 *Quality Tolerances*

5.1.1 **Premium/ “Extra Class”**

Five percent (5%) by number or weight of onions not satisfying the requirements of the class but meeting those of Class I, or exceptionally, coming within the tolerances of that class.

5.1.2 **Class I**

Ten percent (10%) by number or weight of onions not satisfying the requirements of the class but meeting those of Class II, or exceptionally, coming within the tolerances of that class.

5.1.3 **Class II**

Ten percent (10%) by number or weight of onions not satisfying the requirements of the class nor the minimum requirements, with the exception of vegetables affected by rotting, major imperfections, or any other deterioration rendering them unfit for human consumption.

5.2 *Size Tolerances*

For Extra Class, five percent (5%); for Class I or Class II, ten percent (10%); by number or weight of onions not satisfying the requirements as regards sizing, but falling within the class immediately below or above those indicated in Section 4.

6 PROVISIONS CONCERNING PRESENTATION

6.1 *Uniformity*

The contents of each package must be uniform and contain only onions of the same origin, variety, quality and size. The visible part of the contents of the package must be representative of the entire contents.

6.2 *Packaging*

Onions shall be packed in each container in compliance with the Code of Practice for the Packing and Transport of Tropical Fresh Fruits and Vegetables (CAC/RCP 44-1995).

- 6.2.1 Onions must be packed in such a way, as to protect the vegetable properly.
- 6.2.2 The material used must be new¹, clean and of such a quality such as to avoid causing any damage to the onions. The use of stamp bearing trade specification, is allowed provided that the printing or labelling has been done with a non-toxic ink.
- 6.2.3 Onions shall be placed in each container in compliance with the International Code of Practice for the Packaging and Transport of Tropical Fresh Fruits and Vegetables, Codex Alimentarius (CAC/RCP 44-1995).

7 MARKING OR LABELLING

7.1 *Containers destined for the final consumer*

In addition to the requirements of the **BZS 1: Part 3: 1998 – Belize National Standard – Specification for the Labelling of Prepackaged Foods**, the following specific provisions apply:

7.1.1 Nature of the produce

If the produce is not visible, each package shall be labelled as to the name of the produce and optionally, that of the variety.

If the planting material was genetically modified, each package must be labelled in accordance with the legal requirements of the Government of Belize.

7.2 Non-retail containers

For products transported in bulk these particulars must appear on the package or on a document accompanying the goods.

7.2.1 Identification

Exporter, packer and/or dispatcher.

7.2.2 Nature of the Produce

Name of produce if the contents are not visible from the outside, name of variety or commercial type (if applicable).

¹ For the purpose of this standard, this includes recycled material of food-grade quality.

7.2.3 Origin of Produce

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

7.2.4 Commercial Identification

- (a) Class
- (b) Net weight
- (c) Size (reference letter) optional

8 CONTAMINANTS

8.1 *Heavy Metals*

8.1.1 Onions shall be free from heavy metals in amounts, which may represent a hazard to human health. Onion covered by this standard shall comply with those Maximum Residue Limits (MRL) for heavy metals established by the Codex Alimentarius Commission.

8.2 *Pesticide Residues*

8.2.1 Onions shall comply with those Maximum Residue Limits (MRL) established by the Codex Committee on Pesticide Residues for this commodity.

8.2.2 Onions shall contain no more than 3ppm of Maleic Hydrazide.

9 HYGIENE

9.1 It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the **Belize Agricultural Health Authority (Food Safety) Regulations 2001 – General Principles of Food Hygiene**.

9.2 It is recommended that the growing and harvesting of onions adhere to Good Agricultural Practices (GAPs) and all subsequent processing adhere to Good Manufacturing Practices (GMPs).

9.3 When tested by appropriate methods of sampling and examination, the product shall:

- (a) Be free from microorganisms in amounts, which may represent a hazard to human health;

- (b) Be free from parasites, which may represent a hazard to human health; and
- (c) Be free of any substance originating from microorganisms in amounts, which may represent a hazard to human health.