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# GRADING AND QUALITY REQUIREMENTS FOR TABLE EGGS

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# CROSQ (Caribbean Regional Organization for Standards and Quality)

- CROSQ is the CARICOM Regional Standards Body to deal with standardization issues;
- CROSQ is based in Barbados (35 Pine Rd, Belleville, St Michael, Barbados);
- It is charged with the responsibility of developing Regional Standards;
- CROSQ reports to COTED;
- It has a membership of 13 member States (Antigua, Barbados, Belize, Dominica, Guyana, Grenada, Jamaica, Monsterrat, Suriname, Trinidad and Tobago, St Kitts, St Lucia, St Vincent.)

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# RELATED DOCUMENTS

- USA Egg-Grading Manual
- Regulations Governing the Voluntary Grading of Shell Eggs (7 CFR Part 56)
- United States Standards, Grades and Weight Classes for Shell Eggs (AMS 56)
- Canadian Egg Regulations
- Trinidad and Tobago Standards for the Production and Safe Handling of Table Eggs
- Jamaican Standard Specification for Grading and Labelling of Table Eggs; JS 177:1989
- Jamaican Standard Specification for Table Eggs: Quality Requirements ; JS 246 : 1992

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# SCOPE OF STANDARD

- Grading Criteria and Grades
- Weight Classification
- Labelling requirements; and
- Sampling Protocols and Methods of Tests

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# APPLICATION OF STANDARD

- The standard is applicable to Table Eggs which are prepackaged, distributed and offered for sale in the retail trade in the CARICOM region.

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# REQUIREMENTS FOR GRADE – A EGGS

- The egg must meet the National Regulatory Requirements of the territory; and in addition
  - (a) The eggs show on candling:
    - (i) a reasonable firm albumen,
    - (ii) an indistinct yolk outline,
    - (iii) a round yolk that is reasonably well centred, and
    - (iv) an air cell that is not in excess of 5 mm in depth.

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# REQUIREMENTS FOR GRADE - A EGGS (Cont'd)

## (b) The Shell

(i) has not more than three stain spots, the aggregate area of which does not exceed an area equivalent to 25 sq mm and the shell is otherwise free from dirt and stain;

(ii) is normal or nearly normal in shape, but may have rough areas and ridges other than heavy ridges; and

(iii) is not cracked

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# **REQUIREMENTS FOR GRADE A EGGS ( Cont'd)**

- **If one egg was selected from a batch and that egg met the requirements as stated above, the eggs in that batch shall not be graded as A unless the following are satisfied:**
  - (a) The quality factor of albumen firmness of the eggs in the sample averages 67 Haugh units or higher;**

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# REQUIREMENTS FOR GRADE A EGGS ( Cont'd)

- (b) The sample does not contain more than :
  - (i) 10 % of eggs with cracked shells,
  - (ii) 5 % of eggs with dirt on the shells where the dirt on the shell is more than 160 sq mm in size but covers less than 33% of the area of the shell,
  - (iii) 2.5 % of eggs with dirt on the shells where the dirt covers 33% or more of the shell area
  - (iv) 5% of eggs with stains on the shells where the stains cover more than 50 % of the area of the shell,
  - (v) 10 % of eggs with rough, ridged or misshaped shells

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## REQUIREMENTS FOR GRADE A EGGS (Cont'd)

(vi) 5 % of eggs with air cell in excess of  
5 mm in depth, and

(vii) 2.5% of eggs that are leakers; and

(c) The sample does not contain more than a  
total of 15% of eggs described in (b) (i) to (b)  
(vii)

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# REQUIREMENTS FOR GRADE- B EGGS

- In addition to meeting the National Regulatory Requirements;
  - (a) the egg
    - (i) does not meet the requirements for the Grade eggs, and
    - (ii) is not cracked; and
  - (b)
    - (i) shows on candling a distinct yolk outline,
    - (ii) shows on candling a yolk that is moderately oblong in shape and that freely floats within the egg when whirled,
    - (iii) shows, on candling, a very slight degree of germ development,
    - (iv) shows, on candling, an air cell not in excess of 9 mm in depth,
    - (v) shows spots of dirt on the shell, if the aggregate area of the dirt does not exceed 40 sq mm and stain spots, if the aggregate area of the stain does not exceed 320 sq mm, or
    - (vi) has a shell that is slightly abnormal in shape and has rough areas and definite ridges.

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# REQUIREMENTS FOR GRADE- C EGGS

- In addition to meeting the National Regulatory Requirements for table eggs;
  - (a) The egg is free from dirt
  - (b) The egg
    - (i) shows on candling a prominent yolk outline,
    - (ii) shows, on candling, a yolk that is definitely oblong in shape but does not adhere to the shell membrane,
    - (iii) shows , on candling , meat spots or blood spots not in excess of 3mm in diameter,
    - (iv) shows stain spots on the shell, the aggregate area of which does not exceed 33% of the shell surface, or
    - (v) has a shell that is cracked, if the internal contents are not leaking, and
  - (c) The egg is conveyed to a registered process egg station

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# “NEST RUN” GRADED EGGS

- Eggs may be graded “Nest Run” if the eggs:
  - (a) Meet the national regulatory requirement for the production of table eggs; and
  - (b) Are conveyed to a registered egg station at a separate location from the place of production, or a registered processed egg station.

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# “NEST RUN” GRADED EGGS

- A lot or batch of eggs shall not be classed “Nest Run” unless the lot meets the following specifications :
  - (a) The lot does not contain more than :
    - (i) 10 % of eggs with cracked shells,
    - (ii) 5 % of eggs with dirt on the shells where the dirt is more than 160 sq mm in size, and
    - (iii) 3 % of eggs that are leakers or rejects;
  - (b) The lot does not contain more than a combined total of 15% of eggs as described in (a) above.
  - (c) A minimum of 85 % of the lot are A quality eggs; and
  - (d) No individual case contains less than 75 % A quality.

## Table 1 - Weight Classification of Table Eggs

Classification	Label representation	Minimum net weight per dozen eggs g (oz)	Minimum net weight per half-dozen eggs g (oz)
Jumbo	J	850 (30)	425 (15)
Extra Large	XL	766 (27)	383 (13.5)
Large	L	680 (24)	340 (12)
Medium	M	596 (21)	298 (10.5)
Small	S	510 (18)	255 (9)
Extra Small	XS	426 (15)	213 (7.5)

## CARICOM STANDARD FOR GRADING AND QUALITY REQUIREMENTS FOR TABLE EGGS

**Illustrations of Correct Appearance of White and Brown Eggs Showing Maximum Depth of Air Cell and Outline of Yolk in Each Quality**

	<b>AA Quality</b> 1. Egg is clean, free from dirt, grease, and other foreign matter. 2. Shell is smooth, free from cracks, pits, and other defects. 3. Egg is free from any signs of mold, mildew, or other growth. 4. Egg is free from any signs of damage or injury.		<b>B Quality</b> 1. Egg is clean, free from dirt, grease, and other foreign matter. 2. Shell is smooth, free from cracks, pits, and other defects. 3. Egg is free from any signs of mold, mildew, or other growth. 4. Egg is free from any signs of damage or injury.		<b>C Quality</b> 1. Egg is clean, free from dirt, grease, and other foreign matter. 2. Shell is smooth, free from cracks, pits, and other defects. 3. Egg is free from any signs of mold, mildew, or other growth. 4. Egg is free from any signs of damage or injury.
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**Illustrations of Substandard Appearance of Egg Quality (Top and Side Views)**

	<b>AA Quality</b> 1. Egg is clean, free from dirt, grease, and other foreign matter. 2. Shell is smooth, free from cracks, pits, and other defects. 3. Egg is free from any signs of mold, mildew, or other growth. 4. Egg is free from any signs of damage or injury.		<b>A Quality</b> 1. Egg is clean, free from dirt, grease, and other foreign matter. 2. Shell is smooth, free from cracks, pits, and other defects. 3. Egg is free from any signs of mold, mildew, or other growth. 4. Egg is free from any signs of damage or injury.		<b>B Quality</b> 1. Egg is clean, free from dirt, grease, and other foreign matter. 2. Shell is smooth, free from cracks, pits, and other defects. 3. Egg is free from any signs of mold, mildew, or other growth. 4. Egg is free from any signs of damage or injury.
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**Illustrations of Types of Shell Condition and Shell Appearance**

	<b>AA and A Quality</b> Shell is smooth, free from cracks, pits, and other defects.		<b>B Quality</b> Shell is smooth, free from cracks, pits, and other defects.		<b>Dirty</b> Shell is dirty, stained, or otherwise soiled.
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**AA and A Quality**  
1. Egg is clean, free from dirt, grease, and other foreign matter.  
2. Shell is smooth, free from cracks, pits, and other defects.  
3. Egg is free from any signs of mold, mildew, or other growth.  
4. Egg is free from any signs of damage or injury.

**B Quality**  
1. Egg is clean, free from dirt, grease, and other foreign matter.  
2. Shell is smooth, free from cracks, pits, and other defects.  
3. Egg is free from any signs of mold, mildew, or other growth.  
4. Egg is free from any signs of damage or injury.

**Dirty**  
1. Egg is dirty, stained, or otherwise soiled.  
2. Shell is dirty, stained, or otherwise soiled.

**Although this size table may be used for grading, it is not to be used for determining the number of eggs per carton. The number of eggs per carton is determined by the size of the egg. To determine the number of eggs per carton, use the table below.**

Large	Jumbo	Extra Large	Medium	Small	Pewee
30	27	24	21	18	15

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# PACKAGING

- Table eggs may be packaged in various formats up to a maximum of 30 per container.
- Table eggs shall be packed with their small ends facing downwards, either in egg cartons, moulded trays or other appropriate containers approved by the competent authority.
- Packaging materials shall be shock resistant, dry, clean and in good condition. It shall be made of materials, which protect the eggs from extraneous odour(s) and undue risk in quality deterioration.
- Large packs, used for transporting and dispatching eggs, including inner packing materials, shall not be re-used unless they are as new and meet the above requirements.
- Re-used large packs shall not bear any visible markings from their previous use, which may confuse or mislead consumers.
- Small packs shall not be re-used.

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# LABELLING

- Each package of table eggs shall bear the following label declarations in addition to the requirements of the Codex Alimentarius and CARICOM General Standards for the labelling of Pre packaged Foods:
  - (i) The brand or trade name;
  - (ii) The name of the product, Table Eggs, preceded where appropriate, by one of the following descriptive terms :-
    - Sound Eggs
    - Nest Run Eggs
    - Refrigerated Eggs
    - Shell Protected eggs
    - Specialty Eggs

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# LABELLING (Cont'd)

- An accurate statement of minimum net weight, in metric units, and number of eggs.
- The name and address of the packer or distributor;
- The “BEST BEFORE” date and the required storage instruction.
- The following statement in bold type of not less than 3 mm in height. “**IT IS RECOMMENDED THAT TABLE EGGS SHOULD BE KEPT PROPERLY REFRIGERATED UNTIL USED**”

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# LABELLING (Cont'd)

- The following additional information is required for all pre-packaged eggs:
  - (a) At least one exposed surface of every pack for retail sale shall bear one of the weight classifications listed.
  - (b) Where two letters are used to designate the weight classification, there shall be no letter space between them.
  - (c) Each package shall bear an appropriate grade designation.

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# LABELLING OF CONTAINERS OF SHELL EGGS FOR IMPORTATION

- The following information shall be printed on the package of eggs that are imported:-
  - (a) The name of the product TABLE EGGS preceded with one of the following; Sound eggs, Nest Run Eggs, Refrigerated Eggs, Shell Protected Eggs, Specialty Eggs.
  - (b) The name of the country of origin of the product preceded by the words “Product of”
  - (c) The grade and Weight designation;
  - (d) The date of pack;

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# LABELLING OF CONTAINERS OF IMPORTED SHELL EGGS (Cont'd)

- (e) The “Best Before” date;
- (f) The expression “Keep Properly Refrigerated” or words of similar meaning;
- (g) The name of the packer and the place where the packing is done, in the country of origin, as well as the local distributor; qualified with a phrase which reveals the connection, which the person(s) has with the product;
- (h) An accurate statement of the quantity.

Where either nutritional or health claims are made on the product , the retail package shall provide a complete nutritional labelling declaration. Only claims which satisfy the Codex Alimentarius Guidelines on Claims shall be permitted.

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# LABELLING OF PROCESSED EGGS AND EGG PRODUCTS

- Consumer packages of processed egg products shall comply with the requirements of relevant standards for the labelling pre-Packaged Foods as adopted by the Codex Alimentarius commission or CROSQ.
- Where either nutrition or health claims are made with respect to these products, the package containing the product shall provide a complete nutrition labelling declaration. Only claims, which satisfy the Codex Alimentarius Guidelines on Claims shall be permitted.

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# GRADE MARKING

- The grade A distinguishing mark shall be a circle of at least 12mm diameter , with the letter A in the centre in Roman font and having a minimum height of 10 mm.
- The Grade B distinguishing mark shall be in a circle diameter 12 mm, with the letter B in the centre in Roman font with minimum height 10 mm.
- No grade designations other than those specified in this standard shall be used.
- Each package shall bear a producer registration number, issued by the competent authority, consisting of 3 digits and with a height of at least 5 mm.

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# INEDIBLE EGGS

- Eggs are considered inedible if any of the following conditions exist:
- Black rots
- Yellow rots
- White rots
- Mixed rots (addled eggs)
- Sour eggs
- Eggs with green whites
- Eggs with stuck yolks
- Mouldy eggs
- Eggs showing blood rings
- Eggs containing embryo chicks
- Adulterated eggs.