



DEAS 331:2018

ICS 67.060

## DRAFT EAST AFRICAN STANDARD

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Green gram – Specification

EAST AFRICAN COMMUNITY

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Third Edition 2018

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## Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards

they are implementing.

EAS 331:2018 was prepared by Technical Committee EAS/TC 014, *Cereals, Pulses and related products*

This Third edition cancels and replaces the second edition (EAS 331:2012) which has been technically revised.

## Green gram – Specification

### 1 Scope

This draft East African Standard specifies requirements, sampling and test methods for the dry whole grains of the green gram of *Vigna radiata* intended for human consumption.

### 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.

EAS 901, Cereal and Pulses - Test methods

EAS 900, Cereal and Pulses - Sampling

EAS 38, *Labelling of pre-packaged foods – Specification*

EAS 39, *Hygiene in the food and drink manufacturing industry – Code of practice*

CODEX STAN 193, *Codex general standard for contaminants and toxins in food and feed*

### 3 Terms and definitions

For the purposes of this standard, the following terms and definitions shall apply.

#### 3.1

##### **green grams**

dry whole grains of *Vigna radiata*

#### 3.2

##### **defective/damaged green grams**

Green grams that have been broken, pest damaged, shriveled, immature, rotten, moldy, diseased, germinated, discolored and heat damaged.

### 3.3

#### **Immature / shriveled grain**

green grams which are underdeveloped and wrinkled over the entire surface.

### 3.4

rotten and diseased

green gram affected by mould growth or bacterial decomposition, or other causes that may be noticed without having to cut the grains to examine them and render them unsafe for human consumption

### 3.5

#### **discoloured**

green gram which are damaged, by heat, frost or water

### 3.6

#### **objectionable odours**

odours which are entirely foreign to green grams and which, because of their presence, render green grams unfit for human consumption

### 3.7

#### **pest infestation**

presence of live insects or other organisms, either in adult or other development stages

### 3.8 filth

Impurities of animal origin

### 3.9 pest damaged grains

grain showing damage from attack by rodents, insects, mites or other pests"

### 3.10

#### **foreign matter**

all organic and inorganic material other than green gram, broken kernels and other grains

#### 3.10.1

##### **inorganic matter**

stones, glass, pieces of soil and other mineral matter

### **3.10.2**

#### **organic matter**

any animal or plant matter (seed coats, straws, weeds) other than grain of maize, damaged green gram, other grains, inorganic extraneous matter and harmful/toxic seeds

### **3.11 other edible grains**

any edible grains including oilseeds other than green grams'.

### **3.12 contrasting varieties**

other varieties that are of a different colour, size, or shape from the grains of the designated variety.

### **3.13**

#### **food grade packaging material**

material, made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product.

## **4 Quality requirements**

### **4.1 General requirements**

Green grams shall be:

the dried mature grains of *Vigna radiata*, shall be:

- a) clean, wholesome, uniform in size and shape;
- b) well-filled grains of uniform colour;
- c) free from musty or other undesirable odour.
- d) practically free from live pests;
- e) practically free from noxious or harmful seeds in amounts that could be harmful to human health.

## 4.2 Specific requirements

Green gram shall comply with the limits given in Table 1 when tested in accordance with the test methods specified therein

**Table 1 – Specific requirements**

S/N	Characteristics	Grade			Method of test EAS 901
		1	2	3	
i	Moisture, % m/m max.	14			
ii	shrivelled/ diseased and discolored grain % m/m max.	3.0	5.0	7.0	
iii	Broken/split (define according to EAS46)	1.0	2.0	3.0	
iv	Pest damaged, % m/m max.	1.0	2.0	3.0	
v	Total Defective, % m/m max	3.5	6.3	9.1 6	
vi	Contrasting varieties, % m/m max.	0.5	1.0	2.0	
vii	Foreign matter % m/m max	0.5	0.8	1.0	
viii	inorganic	0.3			

ix)	Filth m/ m max	0.1		
x)	Other edible grains, % m/ m max.	0.1	0.5	3.0

NOTE 1 The parameter, total defective grains is not the sum total of the individual defects. It is limited to 70 % of the sum total of individual defects.

NOTE 2 Discoloration is limited to at least 25 % change in color on both sides of the grain.

## 5 Contaminants

### 5.1 Pesticide residues

Green grams shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission for this commodity.

NOTE Where the use of certain pesticides is prohibited by some Partner States, it should be notified to all Partner States accordingly.

### 5.2 Other contaminants

Green grams shall comply with those maximum limits for other contaminants established in CODEX STAN 193.

### 5.3 Heavy metals

Sorghum grain shall comply with those limits for heavy metals specified in CODEX STAN 193 established by the Codex Alimentarius Commission.

## 6 Hygiene

Dry green grams shall be produced, prepared and handled in accordance with the provisions of appropriate sections of EAS 39.

## 7. Weights and measures

Green gram shall be packaged in accordance with the weights and measures regulations of the destination country.

NOTE EAC Partner States are signatory to the International Labor Organizations (ILO) for maximum package weight of 50 kg where human loading and offloading is involved.



## **8. Packaging**

**8.1** Green grams shall be packed packaging materials which will safeguard the hygienic nutritional and organoleptic qualities of the product.

**8.2** Each Package shall be securely closed and sealed.

## **9. Labelling**

**9.1** In addition to the requirements in EAS 38, each package shall be legibly and indelibly labelled with the following;

- a) product name as “Whole Sorghum Grains”;
- b) grade;
- c) name, address and physical location of the producer/packer/importer;
- d) lot/batch/code number;
- e) net weight, in kilograms;
- f) the declaration “Food for Human Consumption”;
- g) storage instruction as “Store in a cool dry place away from any contaminants”;
- h) crop year;
- i) packing date;
- j) instructions on disposal of used package;
- k) country of origin; and
- l) declaration on whether the Sorghum was genetically modified, where applicable.

### **9.2 Labelling of non-retail containers**

Information detailed in 9.1 shall be given either on the container or in accompanying documents, except that the name of the product, lot identification and the name and address of the processor or packer as well as storage instructions, shall appear on the container.

However, lot identification and the name and address of the processor or packer may be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying documents.

## **10. Sampling methods**

Sampling shall be done in accordance with the EAS 900

