



DEAS 762: 2024

ICS 67.060

DRAFT EAST AFRICAN STANDARD

Dry soybeans — Specification

EAST AFRICAN COMMUNITY

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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 762:2017 was prepared by Technical Committee EASC/TC 014, *Cereals, pulses and related products*.

This second edition cancels and replaces the first edition (EAS 762:2013) which has been technically revised.

Dry soybeans — Specification

1 Scope

This draft East African Standard specifies requirements, sampling and test methods for dry soybeans of varieties (cultivars) grown from *Glycine max* (L.) Merr. 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.

AOAC 2001.04, *Official methods of analysis for fumonisins B₁ and B₂ in corn and corn flakes*

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

EAS 38, *Labelling of pre-packaged foods — Requirements*

EAS 901, *Cereal and Pulses— Test Methods*

ISO 6579, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection of Salmonella spp.*

ISO 6561-1, *Fruits, vegetables and derived products — Determination of cadmium content — Part 1 — Method using graphite furnace atomic absorption spectrometry*

ISO 6561-2, *Fruits, vegetables and derived products — Determination of cadmium content — Part 2 — Method using flame atomic absorption spectrometry*

ISO 6633, *Fruits, vegetables and derived products — Determination of lead content — Flameless atomic absorption spectrometric method*

ISO 6888-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 1: Technique using Baird-Parker agar medium*

ISO 7251, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of presumptive Escherichia coli — Most probable number technique*

ISO 21527, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0.95*

EAS 900, *Cereal and Pulses — Sampling*

ISO 24557, *Pulses — Determination of moisture content — Air-oven method*

3 Terms and definitions

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

3.1

soybeans

mature dry grains of variety grown from *Glycine max* (L.) Merr.

3.2

defective soybeans

beans that have been broken, pest damaged, shrivelled, immature, rotten, mouldy, diseased, discoloured and heat damaged

3.3

foreign matter

total of inorganic and organic matter

3.3.1

inorganic matter

stones, glass, pieces of soil, metal and other mineral matter

3.3.2

organic matter

any plant matter (seed coats, straws, weeds) other than grains of soybeans, damaged soybean grains and other grains

3.4

contrasting varieties;

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

3.5

other edible grains

grain other than soybean, whole or broken such as maize, sorghum, wheat, etc.

3.6

pest damaged soybeans

soybeans which show damage owing to attack by rodents, insects, mites or other pests

3.8

harmful matter/toxic matter

any substances in soybean that can have a damaging or dangerous effect on health

3.9

harmful/noxious seeds

seeds such as *Crotalaria* (*Crotalaria spp.*), Corn cockle (*Agrostemma githago* L.), Castor bean (*Ricinus communis* L.), Jimson weed (*Datura spp.*) which, if present in quantities above a certain limit, can have a damaging or dangerous effect on health, sensory properties or technological performance

3.10

immature soybeans

unripe and/or undeveloped whole or broken soybeans

3.11

split/broken soybeans

broken soybeans that are less than three-quarters of the whole seed, and cotyledons that are loosely held together by the seed coat

3.12

filth

impurities of animal origin

3.13

wholesome/sound

free from disease, serious deterioration (such as but not limited to decay, breakdown) or adulteration/contamination, that appreciably affects their appearance, the keeping quality of the produce or market value

3.14

clean

practically free of visible soil, dust, or other visible foreign matter, except substances used to prolong its shelf life

3.15

food grade packaging materials

packaging 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

3.16

discoloured soybeans

soybeans which are damaged, by heat, frost or water.

3.17

rotten and diseased soybeans

soybeans affected by fungi 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.

3.18

mouldy soy beans

soybeans with visible mycelial growth on their surface

4 Quality requirements

4.1 General requirements

Dry soybeans shall be:

- a) hard, clean, wholesome, uniform in size, shape and colour;

NOTE The colour of soybeans may be yellow, green, brown or black.

- b) safe and suitable for human consumption;

- c) free from abnormal flavour and, objectionable smell; and

- d) free from foreign odours, visible moulds, live pests, toxic or noxious weed seeds and other harmful materials as determined from samples representative of the lot.

4.2 Specific requirements

Dry soybeans shall comply with limits given in Table 1 when tested in accordance with the test methods specified therein.

Table 1 — Specific requirements for dry soybeans

S/N	Characteristic	Limit			Test method
		Grade 1	Grade 2	Grade 3	
i.	Moisture, % m/m, max.	14			EAS 901
ii.	Total foreign matter, % m/m, max.	1	2	3	
iii.	Inorganic matter, % m/m, max.	0.1	0.3	0.5	
iv.	Other edible grains, % m/m, max.	0.1	0.2	0.5	
v.	Split/broken/ soybeans, % m/m, max.	1	2.5	5	

S/N	Characteristic	Limit			Test method
		Grade 1	Grade 2	Grade 3	
vi.	Pest damaged soybeans, % m/m, max.	0.3	0.8	1.5	
vii.	Rotten and diseased soybeans, % m/m, max.	0.2	0.5	1.0	
viii.	Contrasting varieties, % m/m, max.	2	3	5	
ix.	Immature and shrivelled soybeans, % m/m, max.	0.1	0.2	0.5	
x.	Filth, % m/m, max.	0.1			
xi.	Discoloured soybeans, % m/m max.	2.5	4.0	5.5	

5 Hygiene

Dry soybeans shall be prepared and handled in accordance with EAS 39.

6 Contaminants

6.1 Heavy metals

Dry soybeans shall comply with limits for heavy metals given in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Heavy metal limits for dry soybeans

S/N	Heavy metal	Limit	Test method
i.	Lead, mg/kg, max.	0.2	ISO 6633
ii.	Cadmium, mg/kg, max.	0.1	ISO 6561-1/2

6.2 Pesticide residues

Dry soybeans shall comply with those pesticide residue limits established by the Codex Alimentarius Commission for this commodity.

6.3 Mycotoxins

Dry soybeans shall comply with those mycotoxin limits established by the Codex Alimentarius Commission as given in Table 3 when tested in accordance with the test methods specified therein.

Table 3 — Mycotoxin limits for dry soybeans

S/N	Mycotoxin	Maximum limit µg/kg	Test method
i.	Total aflatoxins,	10	EAS 901
ii.	Aflatoxin B ₁	5	

7. Packaging

7.1 Brown rice shall be packaged in food grade packaging material which will safeguard the hygienic, nutritional, technological and organoleptic qualities of the products.

7.2 Each package shall be securely closed and sealed.

8.0 Labelling and marking

8.1 Labelling shall be done in accordance with EAS 38. At the minimum, the following information shall be displayed:

- i) name of the product: "Dry soybeans";
- ii) colour;
- iii) grade;
- iv) name, address and physical location of the producer/ packer/importer;
- v) lot/batch/code number;
- vi) net weight, in metric units;
- vii) the declaration "Food for Human Consumption";
- viii) storage instruction as "Store in a cool dry place away from any contaminants";
- ix) crop year;
- x) packing date;
- xi) instructions on disposal of used package;
- xii) country of origin; and
- xiii) a declaration on whether the soybeans were genetically modified or not.

8.2 Labelling of non-retail containers

Information detailed in 8.1 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

9.0 Sampling

Sampling shall be done in accordance with EAS 900.

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