

DRAFT UGANDA STANDARD

**First Edition
2025-mm-dd**

Cassava bread — Specification



Reference number
DUS DARS 853: 2024

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National foreword

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This Draft Uganda Standard, DUS DARS 853: 2024, *Cassava bread — Specification*, is identical with and has been reproduced from a Draft African Standard, DARS 853: 2024, *Cassava bread — Specification*, and adopted as a Uganda Standard.

The committee responsible for this document is Technical Committee UNBS/TC 204, *Fruits, vegetables, tubers and processed products*.

Wherever the words, "African Standard" appear, they should be replaced by "Uganda Standard".

Cassava bread — Specification



Table of contents

1	Scope	1
2	Normative references	1
3	Terms and definition	2
4	Ingredients.....	2
4.1	Raw materials	2
4.2	Optional ingredients	2
5	Requirements.....	2
5.1	General requirements	2
5.2	Specific requirements	2
5	Food additives	3
6	Contaminants	3
6.1	Pesticide residues.....	3
6.2	Heavy metal contaminants	3
6.3	Other contaminants	3
7	Hygiene	3
8	Packaging.....	3
9	Marking and labelling	3
10	Sampling	4
	Annex A (normative) Determination of acid insoluble ash	5
	Bibliography	6

Foreword

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Introduction

This African Standard was developed in an effort to: a) specify requirements for cassava bread and related products; b) ensure adequate and hygienic production; and c) ensure acceptable product quality and safety for human consumption.

Cassava bread — Specification

1 Scope

This Draft African Standard specifies requirements, sampling and test methods for cassava bread, intended for human consumption.

2 Normative references

The following referenced documents referred to in the text in such a way that some or all of their content constitutes requirements 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.

ARS 53, *General principles of food hygiene — Code of practice*

ARS 56, *Prepackaged foods — Labelling*

ARS 471, *Food grade salt — Specification*

ARS 838, *Cassava flour — Specification*

ARS 840, *High quality cassava flour — Specification*

ARS 844, *Cassava and cassava products — Determination of total cyanogens — Enzymatic assay method*

CXG 50, *Codex general guidelines on sampling*

CXG 23, *Guidelines for Use of Nutrition and Health Claims*

CXS 192, *General standard for food additives*

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

CXS 228, *General methods of analysis of contaminants*

ISO 1842, *Fruit and vegetable products — Determination of pH*

ISO 4833, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of microorganisms — Colony-count technique at 30 degrees C*

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

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 21527-2, *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*

ISO 2171, *Cereals, pulses and by-products-Determination of ash yield by incineration*

ISO 712, *Cereal and cereal products-Determination of moisture content-Reference method*

ISO 5498, *Agricultural food products — Determination of crude fibre content — General method*

3 Terms and definition

For the purpose of this document, the following terms and definitions apply.

3.1

cassava bread

thin, cracker-like bread made by baking cassava flour

3.2

food grade material

material which safeguards the hygienic, nutritional, technological and organoleptic qualities of the products

4 Ingredients

4.1 Raw materials

The following materials shall be used in the processing of cassava bread:

4.1.1 Cassava flour complying with ARS 838 and ARS 840.

4.1.2 Edible fat complying with the relevant African Standards.

4.2 Optional ingredients

4.2.1 Edible salt complying with ARS 471.

4.2.2 Permitted flavourings

5 Requirements

5.1 General requirements

Cassava bread shall be:

- a) free from objectionable flavours, odours and insects; and
- b) filth (impurities of animal origin, including dead insects).

5.2 Specific requirements

Cassava bread shall comply with the specific requirements given in Table 1 when tested in accordance with the test methods specified therein.

Table 1 — Specific requirements for cassava bread

S/N	Parameter	Requirement	Test method
i.	Moisture content, %, by mass, max.	12.0	ISO 712
ii.	Crude fibre, % by mass	3.5 – 4.0	ISO 5498
iii.	Ash	2.0	ISO 2171
iv.	Acid insoluble ash, %, by mass, max.	0.20	Annex A
v.	pH of aqueous extract	5.3 – 6.0	ISO 1842
vi.	Hydrogen cyanide.mg/kg, max.	10.0	ARS 844

5 Food additives

Food additives, if used in the preparation of cassava bread, shall comply with CXS 192.

6 Contaminants

6.1 Pesticide residues

Cassava bread shall conform to maximum residue limits for pesticide residues established by the Codex Alimentarius Commission for this commodity.

6.2 Heavy metal contaminants

When analyzed in accordance with CXS 228, cassava bread shall be free from heavy metals in amounts which may represent a hazard to human health.

6.3 Other contaminants

Cassava bread shall comply with the maximum levels of CXS 193.

7 Hygiene

7.1 Cassava bread shall be prepared in accordance with ARS 53 and shall comply with the microbiological limits given in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Microbiological limits for cassava bread

S/N	Micro-organism	Requirement	Test method
i.	Total viable count, cfu/g, max.	10 ⁴	ISO 4833
ii.	<i>Escherichia coli</i> , cfu/g, max.	Absent	ISO 7251
iii.	<i>Salmonella</i> , 25 g, max.	Absent	ISO 6579
iv.	Yeasts and moulds, cfu/g, max.	10 ³	ISO 21527-2

8 Packaging

8.1 Cassava bread shall be packed in food grade material.

8.2 The net weight of the packages for cassava bread may be required to meet the relevant regulations of the destination country.

9 Marking and labelling

9.1 In addition to the requirements of ARS 56, cassava bread shall be legibly and indelibly labelled with the following information:

- common name of the product 'Cassava Bread';
- name, and physical address of the manufacturer/ distributor and /or trade name/ brand name;
- date of manufacture;
- list of ingredients;
- lot identification;

DARS 853:2024

- f) best before/expiry date;
- g) the net weight in metric units;
- h) storage instructions;
- i) declaration of flavouring agent or spice used;
- j) instructions on disposal of used package; and
- k) Where nutritional claims are made, they shall be in accordance with CXG 23.

10 Sampling

Sampling shall be done in accordance with CXG 50.

Annex A (normative)

Determination of acid insoluble ash

A.1 Reagent

A.1.1 Dilute hydrochloric acid, 1:1, prepared from concentrated hydrochloric acid

A.2 Procedure

A.2.1 Weigh accurately about 2 g of the dried material in a tared porcelain, silica or platinum dish. Ignite with a meker burner for about 1 h. Complete the ignition by keeping in a muffle furnace at 500 °C to 570 °C until grey ash results.

Cool and filter through whatman filter paper No. 42 or its equivalent. Wash the residue with hot water until the washings are free from chlorides as tested with silver nitrate solution and return the filter paper and residue to the dish. Keep it in an electric air oven maintained at 135 ± 2 °C for about 3 h. Ignite the dish again for about 30 min, cool and weigh. Repeat this process till the difference between two successive weighings is less than 1 mg. Note the lowest weight.

A.3 Calculation

A.3.1 Acid insoluble ash, per cent by weight

$$= \frac{100(M_2 - M)}{M_1 - M}$$

where

M_2 is the lowest weight, in g, of the dish with the acid insoluble ash;

M is the weight, in g, of the empty dish; and

M_1 is the weight, in g, of the dish with the dried product taken for the test.

Bibliography

CARICOM Regional Standard, CRS 19:2010, *Specification for cassava bread*

