KENYA STANDARD

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Sweetpotato puree — Specification

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TECHNICAL COMMITTEE REPRESENTATION

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University of Nairobi- Department of Food Science Nutrition and Technology
Agriculture and Food Authority — Food Crops Directorate
Kenya Agricultural & Livestock Research Organization
International Potato Center
Kenya Industrial Research and Development Institute (KIRDI)
Food Science and Technology platform of Kenya
National Potato Council of Kenya
Propack Ltd.
Graduate Africa Ltd.
Kenya Bureau of Standards —Secretariat

REVISION OF KENYA STANDARDS

In order to keep abreast of progress in industry, Kenya Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Managing Director, Kenya Bureau of Standards, are welcome.

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Foreword

This Kenya Standard has been developed by the Tubers and Tuber Products Technical Committee under the guidance of the Standards Projects Committee and it is in accordance with the procedures of the Kenya Bureau of Standards.

The development of this standard is in response to the need to accommodate the emerging quality, innovation, technological and environmental issues in the agriculture sector. The implementation of the standard is aimed at creating harmony, safety and quality, uniformity and fair trade in the sector, thereby creating value for the stakeholders.

In the development of this standard. it was envisaged that the current paradigm of sustainable development shall be ensured in the context of social, economic and environmental concerns. The standard thus intends to safeguard the interests of the stakeholders in the entire value chain, guarantee product quality and enhanced safety of the consumers.

In the development of this standard, reference was made to the following documents:

Recommended International Code of Practice General Principles of Food Hygiene.

EAS 66:4:2012- Tomato products — Specification — Part 4: Tomato concentrates (paste and puree).

Acknowledgment is hereby made for assistance received from these sources.

Sweetpotato puree — Specification

1 Scope

This Kenya Standard specifies requirements, sampling and test methods for sweetpotato puree obtained from sweetpotato *(Ipomea batatas)* intended for human consumption.

2 Normative references

The following documents are 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.

AOAC 920.151, *Solids (total) in fruits and fruit products*

AOAC 971.27, *Determination of chloride, expressed as sodium chloride*

KS CODEX STAN 192, *General standard for food additives*

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

KS EAS 12, *Potable water — Specification*

KS EAS 38, *Labelling of pre-packaged foods — General requirements*

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

KS EAS 771*, Fresh sweetpotato — Specification*

KS EAS 803, *Nutrition labelling — Requirements*

KS EAS 804*, Claims — General requirements*

KS EAS 805*, Use of nutrition and health claims — Requirements*

KS ISO 762, *Fruit and vegetable products — Determination of mineral impurities content*

KS ISO 6579-1, *Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of Salmonella spp.*

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

KS ISO 21527-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 1: Colony count technique in products with water activity greater than 0.95*

3 Terms and definitions

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

3.1
sweetpotato puree
product prepared by mashing of steamed, boiled, baked, sweetpotatoes obtained from sound, sweetpotatoes (*ipomea batatas)*

3.2

sound
firm, not soft and free from diseases, insect and pest damage, excessive bruising and physical injuries affecting keeping quality of the root

3.3
food grade packaging material
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

3.4
foreign matter
all organic and inorganic material other than sweetpotato puree

4 Requirements

4.1 General requirements

4.1.1 Ingredients

One or any combination of two or more of the following ingredients may be used in the puree:

a) sweetpotatoes complying with KS EAS 771.

b) spices and aromatic herbs complying with relevant standards.

c) water complying with KS EAS 12.

d) food additives complying with KS CODEX STAN 192.

4.1.2 Quality requirements

4.1.2.1 The sweetpotato puree shall

a) be practically free from insect or their fragments, or fungal growth;

b) have the characteristic taste and flavour of sweetpotato;

c) be free from burnt or any other objectionable flavours;

d) be of good keeping quality and shall show no sign of fermentation;

e) possess good body and consistency, and uniform colour; and

f) be practically free from any extraneous plant material and foreign matter.

4.1.2.2 Where sweetpotato puree is packaged in metal cans, the mineral impurity content shall not exceed 0.1% of the natural total soluble solids content when tested in accordance with KS ISO 762.

4.2 Specific requirements

Sweetpotato puree 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 sweetpotato puree

S/N	Characteristic	Requirement	Test method
i.	Natural sweetpotato puree soluble solids content percent by mass, (% by mass min.)	25	AOAC 920.151
ii.	Sodium chloride percent by mass, max. (% by mass) [a]	2	AOAC 971.27
[a] Where sodium chloride is used.			

5 Contaminants

5.1 Pesticide residues

Sweetpotato puree shall conform to the maximum residue limits established by the Codex Committee on Pesticide Residues for roots and root crops.

5.2 Other contaminants

Sweetpotato puree shall conform to the maximum levels for contaminants in accordance with KS CODEX STAN 193.

6 Hygiene

6.1 Sweetpotato puree shall be produced and handled under hygienic conditions in accordance with KS EAS 39.

6.2 Sweetpotato puree shall be free from pathogenic organisms 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 sweetpotato puree

S/N	Type of micro-organism	Maximum limit	Test method
i.	Yeast/moulds cfu/g	10^3	KS ISO 21527-1
ii.	*Escherichia coli* MPN/g	Shall be absent	KS ISO 7251
iii.	*Salmonella* sp. per 25 g	Shall be absent	KS ISO 6579-1

7 Packaging

Sweetpotato puree shall be packaged in food grade materials that will safeguard the hygienic, nutritional and organoleptic qualities of the product. The packaging materials shall also comply with applicable national regulations.

8 Labelling

8.1 In addition to the requirements of KS EAS 38, the following specific labelling requirements shall apply and shall be legibly and indelibly labelled on each container:

a) name of product shall be “Sweetpotato Puree”;

b) name and physical address of manufacturer/importer;

c) country of origin;

d) date of manufacture and expiry date;

e) list of ingredients in descending order;

f) net content declared in SI units (metric system);

g) storage instructions;

h) instructions for use; and

i) batch number.

8.2 When labelling non-retail packages, information for non-retail packages shall either be given on the packages or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer or packer shall appear on the packages.

8.3 Nutrition labelling

The amount of nutrients in the sweetpotato puree shall be declared on the label in accordance with KS EAS 803.

8.4 Nutrition and health claims

Sweetpotato puree may have claims on the importance of the micronutrients in nutrition and health. Such claims when declared shall be in compliance with KS EAS 804 and KS EAS 805.

9 Sampling

Sampling shall be done in accordance with Annex A.

10 Criteria for conformity

A lot shall be declared as conforming to this standard if samples inspected or analyzed for quality requirements conform to the provisions of this standard.

Annex A
(normative)

Sampling

A.1 Definitions

A.1.1
lot
collection of primary containers or units of the same size, type, and style manufactured or packed under similar conditions and handled as a single unit of trade

A.1.2
lot size
number of primary containers or units in the lot

A.1.3
sample size
total number of sample units drawn for examination from a lot

A.1.4
sample unit
container, a portion of the contents of a container, or a composite mixture of product from small containers that is sufficient for the examination or testing as a single unit. For fill of container, the sample unit shall be the entire contents of the container

Table A.1 — Sampling plan

Lot size (primary containers)	Size of container, n^1
Net weight equal to or less than 1 kg (2.2 lb)	
4 800 or less	13
4 801 – 24 000	21
24 001 – 48 000	29
48 001 – 84 000	48
84 001 – 144 000	84
144 001 – 240 000	126
Over 240 000	200
Net weight greater than 1 kg (2.2 lb) but not more than 4.5 kg (10 lb)	
2 400 or less	13
2 401 – 15 000	21
15 001 – 24 000	29
24 001 – 42 000	48
42 001 – 72 000	84
72 001 – 120 000	126
Over 120 000	200
Net weight greater than 4.5 kg (10 lb)	
600 or less	13
601 – 2 000	21
2 001 – 7 200	29
7 201 – 15 000	48
15 001 – 24 000	84
24 001 – 42 000	126
Over 42 000	200
n^1 = number of primary containers in sample.	