Chicken feet — Specification
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## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>iv</td>
</tr>
<tr>
<td>1 Scope</td>
<td>1</td>
</tr>
<tr>
<td>2 Normative Reference</td>
<td>1</td>
</tr>
<tr>
<td>3 Terms and definitions</td>
<td>2</td>
</tr>
<tr>
<td>4 Requirements</td>
<td>2</td>
</tr>
<tr>
<td>4.1 General requirements</td>
<td>2</td>
</tr>
<tr>
<td>4.2 Types of Chicken feet</td>
<td>3</td>
</tr>
<tr>
<td>4.3 Grading</td>
<td>3</td>
</tr>
<tr>
<td>4.4 Chicken feet defects</td>
<td>3</td>
</tr>
<tr>
<td>5 Contaminants</td>
<td>4</td>
</tr>
<tr>
<td>5.1 Veterinary Drug Residues</td>
<td>4</td>
</tr>
<tr>
<td>5.2 Pesticide residues</td>
<td>4</td>
</tr>
<tr>
<td>6 Hygiene</td>
<td>4</td>
</tr>
<tr>
<td>6.1 Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>7 Food Additives</td>
<td>5</td>
</tr>
<tr>
<td>8 Packaging</td>
<td>5</td>
</tr>
<tr>
<td>9 Labelling</td>
<td>5</td>
</tr>
<tr>
<td>10 Nutrition and health claim</td>
<td>6</td>
</tr>
<tr>
<td>11 Storage and transportation</td>
<td>6</td>
</tr>
<tr>
<td>12 Sampling</td>
<td>6</td>
</tr>
<tr>
<td>Bibliography</td>
<td>7</td>
</tr>
</tbody>
</table>
Foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Trade, Industry and Cooperatives established under Cap 327, of the Laws of Uganda, as amended. UNBS is mandated to coordinate the elaboration of standards and is
(a) a member of International Organisation for Standardisation (ISO) and
(b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards, and
(c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of key stakeholders including government, academia, consumer groups, private sector and other interested parties.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

The committee responsible for this document is Technical Committee UNBS/TC 2, Food and Agriculture, Subcommittee SC 12, Meat, poultry, eggs and their processed products.

This the first edition (DUS 2135:2019), which has been technically developed.
Chicken feet — Specification

1 Scope

This Draft Uganda Standard specifies the requirements, test and sampling methods for Chicken feet including paws fit for food industries and human consumption.

2 Normative Reference

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.

US 779, Requirements for the transportation of meat and meat products

US 737, Hygienic requirements for the production of packaged meat products (processed or manufactured

US CAC/MRL 2, Maximum Residue Limits (MRLs) and Risk Management Recommendations (RMRs) for residues of veterinary drugs in foods

US CAC/GL 50, General guidelines on sampling

US CAC/RCP 58, Code of hygiene practice for meat

US EAS 38, Labelling of prepackaged foods — Specification

US 45, General standards for food additives

US 1659, Materials in Contact with Food — Requirements for Packaging materials

US ISO 6579, Microbiology of food and animal feeds — Horizontal method for detection, enumeration and serotyping of Salmonella, Enumeration by a miniaturized most probable number technique

US ISO 6888-1, Microbiology of food and animal feeds — Horizontal method for enumeration of Coagulase-positive staphylococci (Staphylococcus aureus and other species), Detection and MPN technique for low numbers

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

US ISO 7937, Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of Clostridium perfringens -- Colony-count technique

US 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

US ISO 4832, Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coliforms — Colony-count technique
3 Terms and definitions

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

3.1 Chicken feet
is part of the chicken leg that is cut at the joints between the femur and the tibia, consumed by humans after an outer scaly layer of the skin is removed, this may include the paw.

3.2 Processed chicken feet
is the chicken feet that nail sheaths and thin epidermal skin covering the feet are removed.

3.3 Processed chicken paw
is produced by cutting a carcase leg through the metatarsus approximately at the metatarsal spur. The nail sheaths, thin epidermal skin covering the paw, and carcase are removed. A processed paw consists of a portion of the metatarsus and four digits (phalanges) with attached meat and skin.

4 Requirements

4.1 General requirements

Chicken feet shall;

a) be obtained from healthy poultry slaughtered in licensed premises and subjected to ante-mortem and post-mortem inspection according to the procedure prescribed in US CAC/RCP 58

b) be clean, safe and suitable for the intended purpose, prepared and handled in a sanitary manner and where no contamination or exposure to infectious material during handling

c) be prepared under hygienic conditions and shall be wholesome not have been subjected to any bacterial activation or fermentation

d) be free from any parasitic infestation and from scars of healed-up wounds

e) Chicken feet pad retained and without damage

f) For frozen chicken feet shall be frozen at blast Frozen temperatures -18 °C and below

g) Fresh chicken feet shall be at -4.1 °C or 4 °C

h) Broken Bones Less than 3%

i) Moisture less than 16%
j) Be clean and shall have no;
   i. Yellow Skin
   ii. Feathers
   iii. Bad Smell
   iv. Blood
   v. Black Pad
   vi. Bruise
   vii. Chemical Burn

4.2 Types of Chicken feet

Chicken feet may be processed with paws retained or separated, the paws may be processed.

Chicken feet shall be;

   a) Dried and salted or dried but not salted chicken feet Salt used in salted Chicken feet shall be in accordance with US EAS 35.
   b) Fresh chicken feet
   c) Frozen chicken feet

4.3 Grading

Chicken feet shall be graded basing on quality as in Table 1.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Grade</th>
<th>Characteristic</th>
<th>Average Weight(g) per piece</th>
<th>Average Length(cm)</th>
<th>Tolerance to any defect</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>Prime (A)</td>
<td></td>
<td>35-55</td>
<td>12-18</td>
<td>0%</td>
</tr>
<tr>
<td>ii</td>
<td>Standard (B)</td>
<td></td>
<td>25-35</td>
<td>6-12</td>
<td>Table 2</td>
</tr>
</tbody>
</table>

4.4 Chicken feet defects

Chicken feet shall have the maximum tolerance of defects as specified in Table 2.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Defect</th>
<th>Description</th>
<th>Acceptable limit per foot</th>
<th>Rejectable limit per foot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Processing Defects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>Inflammation</td>
<td>sore, wound or other defect associated with an active inflammatory process including, but not limited to, sanguineous (hemorrhagic), edema, fibrinous, or cheese-like exudate and/or hyperemia. Examples include, but are not limited to, bumble foot, laceration, infection, or ammonia burn associated with edema, necrosis, gangrene, or sanguineous fluid</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ii</td>
<td>Resolving or Healing Wounds</td>
<td>sore, wound, or other tissue condition showing evidence of resolving or healing not associated with an active inflammatory process. Examples include, thickening of the skin, callus, scab, ammonia</td>
<td>13(^a) 6(^b) 3(^c)</td>
<td>14(^a) 7(^b) 4(^c)</td>
</tr>
</tbody>
</table>
burn, dermatitis, tendonitis, or synovitis (not associated with active inflammation).

| iii | Bruise | tissue damage that resulted from trauma, not associated with signs of inflammation. A bruise associated with an inflammatory process is recorded in the Inflammatory Processes category. Examples include, red to black or greenish discoloration of the skin and/or underlying tissues associated or not associated with visible infiltration of blood or blood clots, and bruising associated with bone fractures | 6<sup>a</sup> 3<sup>b</sup> 2<sup>c</sup> 7<sup>a</sup> 4<sup>b</sup> 3<sup>c</sup> |
| iv | Compound Fracture | a bone fracture that has caused an opening in the skin. A compound fracture associated with bruising is not scored in the — Bruise” category. A defect containing a compound fracture and bruising is scored only once in the — Compound Fracture” category. | 5 6 |

### Processing defects

| v | Toenail | the hard keratin dorsal plate of the claw at the end of the digits of the foot. It does not include the softer keratin plate that remains at the end of the digit when the hard dorsal plate of the cuticle that covers softer keratin plate is removed. | 4 5 |
| vi | Mutilation | post-mortem processing defect due to dressing and/or processing of the slaughtered bird or processing of the feet. Mutilation associated with bruising is not scored/recorded as mutilation. A defect containing tissue damage and bruising is scored/counted only once in the bruise category. Mutilation defects associated with acute inflammation are scored under the — Resolving or Healing Wound” category or under the — Inflammatory Process” category when associated with chronic inflammation. Examples include, but are not limited to, a cut or laceration of the skin and/or underlying tissues, missing more than two digits, broken or crushed bone without an associated opening through the skin, and joint separation | 7 8 |
| vii | Extraneous Material | organic or inorganic material or carcass tissue observed on the paw that is not attached by natural attachments, also includes attached feathers when present. Examples include, but are not limited to, ingesta, grease, grease stains, unidentified material, identifiable material, i.e., plant fiber, seeds, dirt, metal, rust, unattached toe nail, unattached cuticle, unattached feathers (down, filoplums/hairs, and bristle feathers), unattached skin or other carcass tissue, and attached feathers | 3<sup>a</sup> 2<sup>b</sup> 1<sup>c</sup> 4<sup>a</sup> 3<sup>b</sup> 2<sup>c</sup> |

**Note 1:** where superscripts a, b and c mean Dimensions;

Small (≤2 inch) – a

Medium (>2 inch to 1 inch) – b

Large (>1 inch) – c

### 5 Contaminants

#### 5.1 Veterinary Drug Residues
Chicken feet shall have a maximum residual limit for veterinary drugs in accordance with US CAC/MRL 2

#### 5.2 Pesticide residues
Chicken feet shall have a maximum residual limit for veterinary drugs in accordance with Codex standards.

### 6 Hygiene
Chicken feet shall be handled, stored and transported following hygienic practices in accordance with US CAC/RCP 58, the personnel handling chicken feet shall also be clean and healthy.
6.1 Microbiology

Chicken feet shall be free from microorganisms as stated in Table 3 below;

<table>
<thead>
<tr>
<th>S/No</th>
<th>Microorganism</th>
<th>Limit</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Salmonella spp</td>
<td>Absent</td>
<td>US ISO 6579</td>
</tr>
<tr>
<td>ii)</td>
<td>Total plate count, cfu per gram, Max.</td>
<td>$10^5$</td>
<td>US ISO 4833</td>
</tr>
<tr>
<td>iii)</td>
<td>Coliform count, MPN/g, Max.</td>
<td>$10^3$</td>
<td>US ISO 4832</td>
</tr>
<tr>
<td>vii)</td>
<td>E.coli MPN/g., Max</td>
<td>$10^2$</td>
<td>US ISO 7251</td>
</tr>
<tr>
<td>v)</td>
<td>Staphylococcus aureus</td>
<td>$10^2$</td>
<td>US ISO 6888-1</td>
</tr>
<tr>
<td>vi)</td>
<td>Pseudomonas aeruginosa</td>
<td>Absent</td>
<td>ISO 13720</td>
</tr>
<tr>
<td>vii)</td>
<td>Pseudomonas perfringens</td>
<td>Absent</td>
<td>US ISO 7937</td>
</tr>
</tbody>
</table>

7 Food Additives

Chicken feet shall be preserved prior to storage as in accordance with US 45.

8 Packaging

Chicken feet shall be packaged in food grade material and in accordance with US 1659.

9 Labelling

In addition to the requirements of US EAS 38, the following labelling requirements shall apply and shall be legibly and indelibly marked:

a) Common name of the product to be declared on the label as 'Chicken feet'
b) Type of Chicken feet eg ‘Frozen, dried and salted or fresh chicken feet’
c) The grade and the length
d) Net contents by weight ('System International') units;
e) Name and physical address of the manufacturer/distributor;
f) Country of origin;
g) Lot /batch identification;
h) Shelf life: best before/use by date;
i) Statement 'Food for Human Consumption' shall appear on the package;
j) Storage conditions as per required storage conditions
k) Instructions on disposal of used package;
1) Each container shall be marked with a Certification Mark

m) Packaging date.

10 Nutrition and health claim

Chicken feet may have health claims associated with nutritional composition and health. Such claims when declared shall be consistent with US EAS 805.

11 Storage and transportation

11.1 Chicken feet shall be stored and transported as in accordance with US 737 and US 779.

12 Sampling

Sampling shall be carried out in accordance with US CAC/GL 50
Bibliography

Certification marking

Products that conform to Uganda standards may be marked with Uganda National Bureau of Standards (UNBS) Certification Mark shown in the figure below.

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